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PHOTO ERA

THE AMERICAN JOURNAL
OF PHOTOGRAPHY

AN ILLUSTRATED MONTHLY
OF
PHOTOGRAPHY AND ALLIED ARTS

VOLUME XV

JULY, 1905, TO DECEMBER, 1905, INCLUSIVE

PUBLISHED BY
THE PHOTO ERA PUBLISHING COMPANY
170 SUMMER STREET, BOSTON, MASS.

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PHOTO ERA

THE AMERICAN JOURNAL OF PHOTOGRAPHY

VOL. XV

JULY, 1905

No. 1

PUBLISHED AND COPYRIGHTED BY PHOTO ERA PUBLISHING COMPANY, 170 SUMMER STREET, BOSTON, MASSACHUSETTS
Entered at Post Office, Boston, as second-class matter

Editor: THOMAS HARRISON CUMMINGS

Associate Editors: M. O. SAMPSON, FRANK ROY FRAPRIE, S. M., WILFRED A. FRENCH, A. M., HERBERT W. TAYLOR

Contributions relating to photography in any and all of its branches will receive our careful consideration. While not accepting responsibility for unsolicited contributions, we will endeavor to return them if not available, provided return postage is enclosed.

SUBSCRIPTION RATES

The annual subscription in the United States, Canada, and Mexico, | Subscription in other countries in the Postal Union \$3.50
is \$2.50. Single copies, 25 cents each | Always payable in advance

ADVERTISING RATES ON APPLICATION

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ERNEST HAROLD BAYNES
HEAD OF AN OLD BULL BISON IN DECEMBER



PHOTO ERA

The American Journal of Photography

VOL. XV

JULY, 1905

NUMBER 1



WM. SHEWELL ELLIS

HOUDIN'S BUST OF JONES

HISTORICAL RECORD WORK — THE MEMORY OF JOHN PAUL JONES

THOMAS HARRISON CUMMINGS

It has been said that republics are proverbially ungrateful, but sometimes they make amends.

John Paul Jones, a naval hero of two hemispheres and the founder of the American navy, after a life spent in service to his adopted country, died in Paris, July 20, 1790, alone and un-honored. One hundred and fifteen years have since rolled away and the fate which denied him



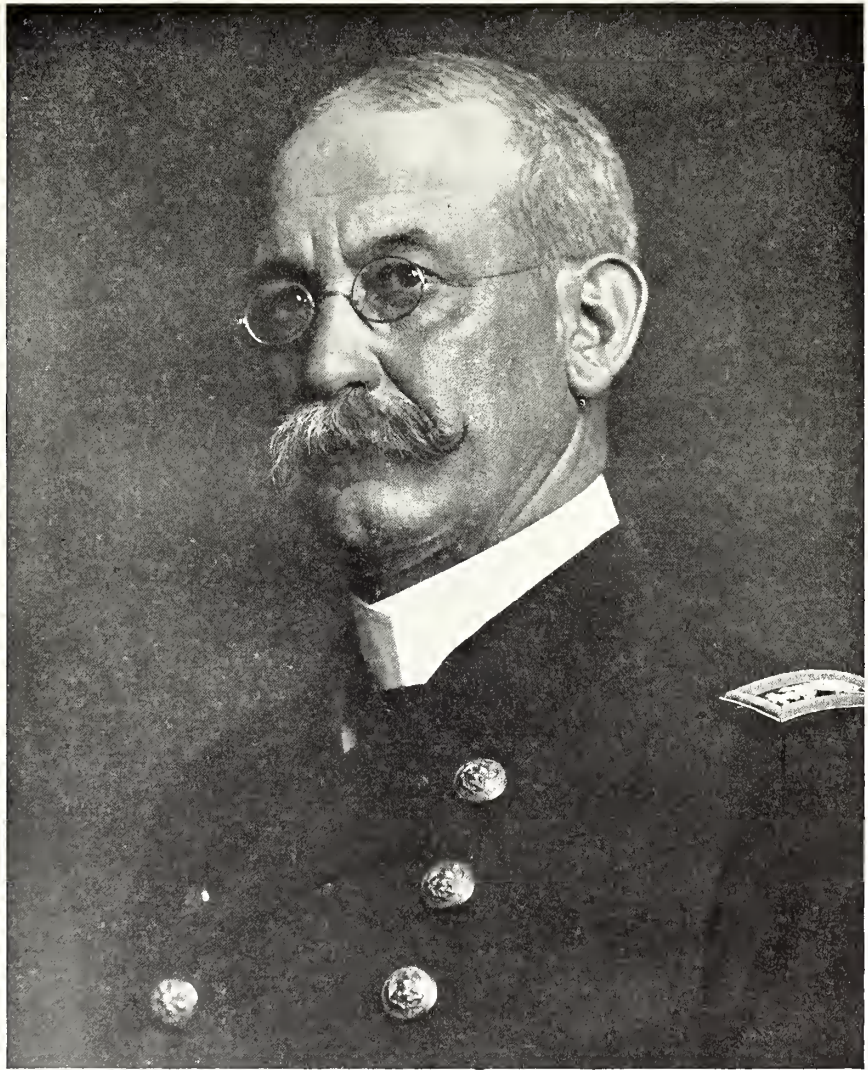
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THE "BON HOMME RICHARD" AND THE "SERAPIS"
"I HAVE NOT YET BEGUN TO FIGHT"—JOHN PAUL JONES

honors in life will now honor all that exists of his mortal remains in the year of our Lord 1905. The second squadron of the North Atlantic fleet, consisting of the armored cruiser "Brooklyn" and the protected cruisers "Chattanooga," "Galveston" and "Tacoma" have been selected by the Navy Department to bring the body of John Paul Jones, recently exhumed in Paris, back to the United States, Rear Admiral Sigsbee in command. John Paul Jones was the friend of Washington, Franklin, John Adams, Robert Morris, Thomas Jefferson, and La Fayette. These men knew him and prized his friendship highly. Though a Scotchman by birth, he early came to America, and was all his life a true-hearted American from choice. He fought twenty-two battles at sea during the Revolution and was never vanquished, and he made seven victorious descents upon the coast of Great Britain and her colonies. He captured two ships of equal size with his own and two of far superior force, besides taking many other warships and merchant craft.

No man, except perhaps Napoleon, ever more thoroughly frightened the Britishers than did John Paul Jones when he forced the English to desist from their atrocious system of pillaging and burning in America and to exchange as prisoners of war American sailors plunged into English prisons as traitors.

In the great naval battle, a picture of which, by Lansil, is herewith reproduced, between the "Bon Homme Richard" of forty-two guns and the English ship "Serapis" of forty-four guns, Commodore Jones assisted, with his own hands, in lashing the jibstay of the "Serapis" to the mizzenmast of the "Richard." The artist's conception of the sea fight is admirable



HENRY HAVELOCK PIERCE

REAR ADMIRAL SIGSBEE, U. S. N.

and the picture itself teaches a lesson of composition in marine work to photographers in its fine handling of lines and beautiful mastery of the arrangement of elements in a picture space. The battle was fought off the coast of England in November, 1779, and was one of the bloodiest engagements in the history of the Revolution.

Those were the days when the fighting ebbed and flowed from deck to deck, when the naval commander had to be a leader indeed, throwing himself sword in hand into the *mêlée* and literally pointing the way of his men.

It was a murderous school of warfare. Ships were set on fire by grenades thrown into open hatches from the yards or tops of antagonists, and when the vessels ground together broadside to broadside so tightly that the lower-deck guns of neither could be run out of the ports, they were locked together in a death grapple, the victory going to the one showing the best fighting qualities and the greatest staying powers. But the invention of steam and the improvement of guns, torpedoes, and ships has worked a transformation in naval warfare. The recent battle in the straits of Corea between the Russian and Japanese fleets demonstrated this. The fleets pounded each other

at a distance of three or four miles, with projectiles that weighed as much as the old-time frigates' broadside. Yet the American Jones was quite as great in his day as the Japanese Togo is to-day. For even with his limited resources, he wrung "the fiery heart of victory" from the flames of battle and was always the life and soul of his victorious crews, in days when naval battles were won more by individual courage than by science, as is the case to-day. He also hoisted with his own hands on the Colonial warship "Alfred," the first American flag ever displayed by an American man-of-war.

In a letter to Robert Morris, dated Oct. 10, 1783, Paul Jones wrote: "It was my fortune, as the senior first lieutenant, to hoist the flag of America the first time it was ever displayed. Though this was but a light circumstance, yet I feel for its honor more than I think I should have done, if it had not happened." He also secured the first salute for this flag ever given by a foreign power. In a letter to Congress, dated Feb. 22, 1778, he wrote: "I am happy to have it in my power to congratulate you on my having seen the American flag for the first time recognized in the fullest and completest manner by the flag of France. I was off this bay (Quiberon) on the 13th inst., and sent my boat in the next day to know if the admiral would salute. He answered he would return to me as the senior American continental officer in Europe, the same salute as he was authorized to return to an admiral of Holland or any other republic, which was four guns less than the salute given by me. I hesitated at this, for I had demanded gun for gun. Therefore I anchored in the entrance of the bay at a distance from the French fleet; but after a very particular inquiry on the 14th, finding that he really told the truth, I was inclined to accept this offer, the more as it was an acknowledgment of American independence."

Commodore Jones superintended the construction of the first ship of line of the United States built at Portsmouth, N. H., in 1782, and during the subsequent years he courageously sustained the great cause of American liberty on land and sea. He was both skilful and daring in the execution of his maneuvers, and often wrung victory from defeat by his superior genius and courage. Such a man we should delight to honor even in death.

There being no doubt that the body recently exhumed in Paris is that of the great revolutionary commander, it is but fitting that the American nation should bow its head at his bier, not only for what he contributed to the prowess of our infant navy, but also because he was the first to raise the American flag at home and the first to demand respect for it abroad.

It is to be regretted that photography was not invented in his day, as his picture now would recall in detail the features of one who formed a very important part of the national life of the country in its early days. In the absence of a good photograph, taken from life, we reproduce herewith a photograph of a bust, made by the celebrated French sculptor, Houdin, for the Masonic Lodge of Nine Sisters in Paris, of which Jones was a member.

A replica now stands in the Academy of Fine Arts at Philadelphia, and we have had a photograph made of this for our readers. It is, no doubt, one of the most perfect likenesses of Paul Jones extant to-day, as the sculptor knew him well in life. An heroic figure in life, in death he still lives, and for years to come his achievements will furnish an inspiration to the officers and men of the gallant American Navy. The photograph was made specially for the PHOTO ERA by Wm. Shewell Ellis of Philadelphia with the consent of the directors of the Academy. The picture of Rear Admiral Sigsbee, by Henry Havelock Pierce of Boston, is a striking portrait in carbon of the distinguished naval officer detailed by the United States government to bring home the remains.



ERNEST HAROLD BAYNES

SOLITARY BISON BULL IN JUNE

PHOTOGRAPHING BUFFALOES

ERNEST HAROLD BAYNES

In spite of the fact that the first buffalo I ever photographed positively refused to "look pleasant," chased me up a tree, and made matchwood of my camera, I still maintain that there is no subject more worthy of the careful attention of the animal photographer than this greatest of our native mammals.

A full-grown bull buffalo is a creature of commanding presence — the grandest animal on the American continent to-day. His huge and rugged form, his massive head, with its deeply curved horns and long, black beard, his mighty limbs and kingly bearing, fill us with admiration as we look at him, and make us proud that he is distinctively American. But apart from his physical grandeur, the bison is a subject full of poetry and sentiment. No other wild animal has played so important a part in the development of this country. His history is inseparable from that of the Indians, whose every want he supplied, and his story is closely interwoven with that of the pioneer settlers, whose burdens he lightened, and many of whose tasks would have been impossible but for his presence. To those who are interested in animals in proportion to their uncommonness, the buffalo should make a special appeal, for he is now the rarest of the large mammals, and practically on the verge of extinction. The animal has an added interest at the present time, because of the widespread movement to effect his preservation.

The greatest difficulty with which a would-be photographer of buffaloes is apt to be confronted, is in the finding of his subject. Scattered all over the United States there are thirty odd places where buffaloes may be found. There are about a dozen herds which contain ten or more, and two or possibly three of these herds contain over one hundred individuals. The largest herd in the world is the one at Corbin Park, Newport, N. H.; the next in size is the Allard



ERNEST HAROLD BAYNES

BISON COW AND CALF IN NOVEMBER

herd, on the Flathead Indian Reservation, Montana; the third is the James Philips herd, Port Pierre, South Dakota; the fourth belongs to Charles Goodnight, of Goodnight, Texas; and the fifth, a herd of possibly forty, is the property of the United States, and is protected at the Yellowstone National Park. All the rest are small groups of twenty or less. The only wild buffaloes in the country now are in a very small herd in the Yellowstone National Park. My own experience in photographing buffaloes has been gained chiefly at Corbin Park, but certain little points I have learned in that reservation may be readily applied elsewhere.

In order that the reader may know exactly the problem involved in photographing buffaloes in Corbin Park, I will say that except in winter, when they are yarded in comparatively small enclosures, the animals are practically in a wild state, having the run of a tract of twenty-four thousand acres. Here from early May until December, this herd, now numbering upwards of a hundred and eighty buffaloes, roams at will over the broad pastures, through the green valleys and over the wooded slopes and summit of Croydon Mountain, and it is in this beautiful country, with its dark spruce forests, interesting ponds and splashing trout brooks that it has been my privilege to hunt with a camera.

As a rule the buffaloes are found either all together, or in groups of forty, fifty, or sixty, but there are a few old bulls which keep strictly to themselves during the greater part of the year, and it was one of these which gave me the first opportunity to use my instrument. I saw him grazing quietly on a green hillside, and I hurried home and returned presently with a loaded reflex camera. The bull was not in sight, but soon I discovered him lying behind a boulder, calmly chewing the cud. His back was towards me, and walking around him until I could get the wind in my face, I began to stalk him. It was easy work, at least I thought it was, until I came nicely within range and began to focus. At this instant the wind changed, and the old bull sprang to



ERNEST HAROLD BAYNES

A HERD OF OLD BULL BISON

his feet and was off down the hill at an easy, bounding gallop which soon left me far behind. However, I followed as fast as I could, keeping my eye on the flying buffalo as he half climbed and half jumped over an old stone wall, but I lost sight of him as he entered an evergreen forest, whence came the sound of cracking twigs and swishing branches as the huge beast forced his way through. Coming to the edge of the woodland, there was no difficulty in finding and following the trail of the game. It was not necessary to look for footprints, though these were plain enough in most places; he had left a distinct trail of hair, which clung in little bunches to every dry twig he had brushed against in his flight. For a mile I toiled behind, laden with my camera, when suddenly I came out into a little grassy clearing, less than a hundred yards across. A few spruce-trees dotted this space, and as I brushed past one of these I almost ran upon the horns of the buffalo bull, who was standing just behind it. I don't know which of us was the most surprised, but I realized at once that it was my move, and I moved promptly. With more speed than dignity I placed a spruce-tree between myself and the animal I sought to photograph, for if there is one thing a bison does not like, it is to be crowded, and as he is well able to back up his objections it is well to humor him. However, I could not very well photograph him from where I stood, so I walked carefully out into the open. The bull was angry, and showed it in every movement. His head was lowered to the ground, he snorted furiously and rolled his eyes until little could be seen but the whites. He pawed the earth, throwing the lumps of turf high in the air, and twitched his short tail, which he held well up over his back. Suddenly he dropped to his knees, laid the side of his head flat upon the ground and rolled over, throwing his legs in the air. I released the shutter during this operation, but I never developed that plate. With one mighty heave, the bull lifted himself to his feet, dropped his head to the ground, and with a snort which I'm sure expressed his feelings, he came toward me like a thunderbolt. There was just one thing for me to do, and that was to clear the track, and I bolted for the friendly spruce-tree at my very best



ERNEST HAROLD BAYNES

RAIN-IN-THE-FACE, AN ADULT BUFFALO BULL

pace. In a moment I was in its lower branches, but unfortunately my camera caught on a twig, and slipped out of my hand. It fell almost directly in the path of the bull, who, with a sidewise swing of his head caught the instrument, and sent it flying end over end into the middle of another spruce-tree, and then I knew just what would have happened to me had I been where the camera was. The bull did not return to the attack, and after allowing him plenty of time to get out of the neighborhood, I came down, picked up the remains of my camera, and went home, determined to try my luck again at once. Luckily, the lens was not even scratched, so I quickly fitted it to another camera, pushed a couple of sandwiches into my pocket, and within an hour I was again on the trail of the bull. I found him by and by, rubbing his head and neck up and down against the trunk of a young white pine, and breaking off all but the stoutest of the branches. As soon as he saw me he made off at a fast walk, but I followed quietly, and as he came to the top of a hill I got a long-distance shot at him against the sky. Once or twice during the afternoon he started to chase me, but changed his mind, and gradually he seemed to learn that my intentions were peaceful, and as he began to pay less and less attention to me, I approached nearer and nearer and got larger and larger pictures of him. Finally he lay down and began to chew the cud, and I took a parting shot and went home, a dozen exposures to the good.

It was not long after this that very early one morning I came upon a herd of buffaloes, a hundred strong, grazing on a bit of high land where they had spent the night. I soon got two cameras and set off after them, but before I was quite near enough some of the shaggy beasts caught sight of me. With a few deep grunts they warned the rest, and in a moment the whole herd was galloping away down a hill, and crossing a swamp at full speed they entered a wood, where they were lost to view. However, he who runs may read the fresh trail of a herd of buffaloes by the trampled grass, the broken branches, and, in the summer, by the hair which clings to every twig they touch. So I hurried after them, and soon met with an unexpected opportunity. Parts of Corbin Park were once farming country, and many of the old farmhouses are still standing.



ERNEST HAROLD BAYNES

BISON COW AND CALF IN JULY

As I came out of the wood, I saw that the buffaloes had halted, and were preparing to camp, as it were, in the rear of one of these old houses, and I waited a while until some of them began to lie down. Then I crept cautiously up to the front of the building, quietly removed one of the windows, and crawled into a musty room, lifting the cameras in after me. Going to the rear, I could see the whole herd in full view from the back windows, and by carefully opening one of these, and by removing a pane of glass from another, I soon had all the animals under fire. Presently some of the buffaloes began to move about and graze near the windows, and it was good fun to watch and photograph them at close quarters, while they were quite unconscious of my presence. First I got a picture of a young bull, whose winter coat was still hanging to his sides in tatters, and then came a cow with her three-months-old calf. As I released the shutter, the cow raised her head, but it was dark in the room, and she could not see me, so went to grazing again. I made several exposures, and might have made many more but for my clumsiness in dropping a plate-holder, which fell on the floor with a crash. Half a dozen loud grunts greeted this noise, and all the buffaloes which were lying down now sprang to their feet. A few more grunts followed, and as though they had received an order to march at the double quick, the whole herd bounded away, and turning one of my cameras about I took a last shot at them as they swung round a bend in the hills.

The autumn proved to be a much better season than either the spring or summer for photographing buffaloes, for several reasons. In the first place, it is much easier to approach a herd in the fall, because the calves are older, and the cows are not so nervous about them. Nevertheless, it is always wise to approach a herd with caution, regardless of the season. If you frighten one buffalo into running away, there are ninety-eight chances out of a hundred that the rest will follow him promptly. My own plan is to approach by easy stages, first walking past the animals at a considerable distance, as though bent on other business. Presently I turn and walk back, but perhaps twenty or thirty feet nearer the herd. If they appear at all nervous, I sit down



ERNEST HAROLD BAYNES

YEARLING BISON CALF IN NOVEMBER

where the animals can see me, but so far away as not to arouse suspicion. By narrowing the distance gradually, it is usually possible to saunter very close without stampeding the herd, and if they will only begin to graze while I am reasonably near, there is no further trouble. If I see some individual getting restless, and sauntering away, grunting perhaps to warn the rest, I try to gently head him off and turn him back toward his companions, for if he once makes a good start, the game is up. Another reason why autumn is a good season for this work is that the coats of the animals are coming into prime condition, and still another reason is that in the fall, the backgrounds are better as a rule. Buffaloes are dark in color, and when photographed against our summer foliage or against dark green fields, the contrast is often very slight. But when the trees are bare and gray, and when the grass is dry and bleached, better results are obtainable. Sky and water make good backgrounds at all seasons.

Later in the year one gets a splendid background in the snow, but if it is deep, the work is not without danger, for if a bull should take it into his head to charge, the chances of dodging him would be small. Nevertheless, to some, a little danger adds spice to the game, and surely no enthusiast would wish to lose a good picture through fear of his subject.

It is never more easy to photograph buffaloes at Corbin Park than in the winter, when they are yarded in comparatively small enclosures and cannot get out of range. Of course it is necessary to go right into the yards, and walk about in a herd of forty or fifty buffaloes, and though most of them are quite harmless, there is always a chance of meeting some crusty old bachelor who would just as soon help one over the fence as not.

But the really dangerous subject is the buffalo cow when she has a young calf. Compared with her an old bull is as tame as a sheep. Last spring I went over to get some photographs of cows and calves, and I got them, but two or three times one of the cows came very near getting me. I had two assistants, and one of these had a very close call. A savage cow chased



C. H. LOMAX MITCHELL

THE TOLL GATE

him right across the yard, and I got his picture as he was scrambling over a fence, with the cow almost on her haunches where she had checked herself just below him. This branch of the buffalo photography is rare sport if you can dodge well and don't lose your head. But it is a game in which the photographer must have no accidents and make no mistakes; if he does, they are likely to be his last, for there will be small chance of his living to profit by them.

THE PRINCIPLES OF PHOTOGRAPHY BRIEFLY STATED

PHIL M. RILEY

SEVENTH PAPER — ARTISTIC PICTURE MAKING

1. *Distinction between Photographs and Pictures.* — The worker has now arrived at a point in the progress of his photographic training when he can begin to consider other things besides the actual making of the photographs themselves. Photography is an art as well as a science, and usually the more photographs the worker makes the more complete is his realization of this fact. Although his views show a bright, clear reproduction of everything within the range of the lens, he experiences a feeling of dissatisfaction with them, and begins to realize that they lack an indefinable something that he does not understand. Occasionally he sees a photograph, made perhaps by a friend or the local photographer, which appeals to him in a way which his own have never done. By questions as to the plate, developer, or paper used, he tries in vain to learn of some means by which he can produce a similar result. Mere technical skill will not aid the worker to make pictures, for an adept in photographic technique has only acquired the means to an end. A photograph may be technically perfect and yet have no claim to be a picture or anything akin to art. The amateur terms his photographs "pictures," when many of them lack all the elements which make what artists call "pictures." It is from



H. F. POND

ON THE ST. CLAIR RIVER

this artist's standpoint that the word "picture" is used in this paper. If the worker wishes to do better than make ordinary photographs, he must first learn something of the principles of art. It has been said that artists are born, not made; and it is certainly true that one person may see the possibility of a beautiful picture in what would pass unnoticed by another. At the same time, a born artist must study to rise above the commonplace, and while few can become leaders, by the study of recognized works of merit and due regard for the principles of art, all can by application make pictures worthy of admiration.

2. *Essentials of a Picture.* — If a worker looks through quite a collection of pictures, studying them with care, he will find that those which especially appeal to him have certain things in common which are absent in those which do not. This study of pictures has been going on for centuries, and the results form the so-called principles of art. These principles are not hard or fixed rules, and the worker should consider them rather as danger signals which will help him to avoid mistakes by teaching him what constitutes a picture and how pictorial effect may be secured. In a picture made by photography the essentials to be considered are the motive, the composition, and the light and shade.

3. *Motive.* — A picture that does not show an idea is not worthy of the name, but there must be only one idea or the interest will be divided and the strength lessened. If skilfully handled, a picture should convey the impression made on the mind of its producer to that of the beholder, be it an effective condition of nature such as a snow scene, a gathering storm, a



LEE RAWLINSON

A COUNTRY ROAD

foggy morning, a beautiful sunset, or some little bit of human life like a workman at his toil, two children at play, a fisherman and his catch, the street mendicant, and such simple studies.

4. *Composition*. — All pictures are made up of straight, curved, and angular lines which may be sharply defined, slightly indefinite, or only vaguely suggested. In a mountain, for instance, the horizontal line at the base always conveys the idea of rest, repose, and quiet. From the base to the top rises a suggested perpendicular which gives strength and power, while the sloping sides, not being self-supporting, are dependent upon it for support. The worker should form the habit of analyzing a picture in this manner and tracing the leading lines, in order that he may better understand how completely they control the effect by conveying the different ideas of rest, motion, etc. Composition consists in arranging the leading lines so that the general effect shall be one complete artistic whole, implying harmony, balance, variety, and contrast. The laws of composition teach what should be included in a picture, and the proper arrangement of those objects. The great law of composition is to include such objects, and arrange them in such a way that the resulting picture is thoroughly satisfying to the eye, and conveys the very best possible sentiment of the objects photographed. Such a view will have both harmony of design and balance of symmetry of the objects portrayed.

5. *Harmony of Design*. — When all the objects in a picture are arranged in such a way that each seems fitted for the place it occupies, there is harmony of design. The value of an object to the composition should not be because of its individual merit, but from its relation to the whole composition. This should be remembered especially in making figure studies indoors. Never get all the best articles of furniture and bric-a-brac in the house into a view. It will always draw the attention from the real subject of the picture. Nothing should be included in the picture which does not harmonize with the thought to be expressed. Study simplicity and have in every picture an objective point of chief interest, and the less in addition thereto the better. Moreover, the point of view and the time of day should be so chosen that all the lines and the lights and shades will lead to, or be connected with the point of chief interest. Snap-shots very rarely result in artistic photographs, and too much care and study cannot be given to the composition of a view which is really worth taking. Experienced workers have been known to work on one view for months before a perfectly satisfactory negative was made.

6. *Balance of Symmetry*. — Every good composition should have balance of symmetry;



MRS. J. C. SHERIDAN

LILACS

that is, all the objects included should be so arranged that they make a perfect whole, without detracting from the principal object, or throwing all the weight to one side. The best way to secure this result is to take short views. Most amateur photographers seem to have an insatiable desire to photograph a veritable panorama on one plate. Every good composition has one single motive, and all the objects included are so closely associated in their relation with that motive that it becomes perfectly obvious that not one of them can be spared without detracting from its artistic beauty. Composition is much more a study of exclusion than of inclusion. A stone wall, a road, a hill, a bridge, a herd of cattle and some trees will make several good views, but the experienced photographer would never think of making one photograph of them all. Include as few objects as possible, and the very simplicity of the picture will be its strength and beauty. Wide-angle lenses and artistic photography do not generally go hand in hand. Care must be used in composing a picture to choose a view point where all the weight will not be thrown to one side. If, for instance, the point of chief interest is a range of hills lying almost wholly to one side, it should be counterbalanced by another object, as a tree, on the opposite side.

7. *Different Kinds of Composition.* — In order to secure good composition many workers choose their point of view so as to place the most important objects in such positions that the



G. W. WHITEHOUSE
AMONG THE FIELDS E'EN WILD FLOWERS ARE FAIR





JAMES GALE
TOILERS





G. H. SEELEY
WHY ARE YOU SO HOMELY?





GABRIEL SOULARY
PÊCHEUSES DE CREVETTE





S. I. CARPENTER

CLOUD STUDY

leading lines will roughly outline some geometrical figure. Although there are many such schemes, only two are used to any extent, and these are diagonal composition and pyramidal composition. The former method derives its name from the fact that the lines of the object photographed run diagonally across the picture, as in street scenes, country lanes, seashore and river views. In the latter method the objects assume the outline of a triangle as in groups and very short views, such as the edge of a pond with a clump of trees near by and a boat drawn up on the bank. Variety is often secured by the combination of both methods of composition in the picture.

8. *Aids in Composition.* — There are a few simple rules which, if followed, will do much toward securing the desired harmony and symmetry of a composition. Care in choosing the point of view is the most important thing about picture making, for a perfect negative cannot make a good picture out of a bad composition. A view which is not interesting, suggestive, or striking should not be made at all. When amateur workers cease snapping at everything in sight in the vain hope that a few good pictures will result, more artistic views will be seen. The object or motive should always justify the making of a photograph. If this is the case, it then becomes a matter of varying the point of view and the light and shade so as to make a pleasing composition. Unity, harmony, and simplicity are the qualities to be striven for in pictorial photography. When the motive of the view has been carefully determined, everything else must be subordinated to it. Everything which is not directly associated with the principal object should be excluded if possible. Minor objects can often be subordinated by choosing such a point of view as to place them in the background; sometimes they may be slightly thrown out of focus by focusing on the object of most importance and using a large stop, which will have a tendency to draw attention to the portion of the picture which is most sharply focused; frequently by varying the point of view or the time of day at which the exposure is made, the lines of the



H. G. DORSEY

THE OPEN GATE

composition and the light and shade may be made to draw the attention to the principal object and away from the objects of only secondary importance.

The horizon line is sometimes troublesome, and the proportion which the sky bears to the foreground often gives the key to the whole picture. Almost without exception the horizon line should not bisect the plate, but should rather be placed about one third from the top or bottom of the view. A low horizon line usually suggests the idea of distance, and a high horizon line gives very nearly the opposite effect. From this it is seen that one third from the top is better for short views, while extensive landscapes require more sky, — about two thirds of the view.

Good workers consider that the center of a picture is its weakest point and the painstaking pictorialist will carefully avoid placing the principal object of interest there. Frequently the principal object is not easily found because it is not always the largest. Whatever is of most interest should be placed just to the right or left of the center and the lines of the picture made to converge toward it as much as possible. Get the lines to run diagonally from one side to the other instead of up the center of the picture or directly across it. The necessity of this caution is well shown by many street and river views. Such pictures should always be taken from the side of the street or bank of the river, with the idea of securing as sweeping and graceful lines as possible. The results will be much more artistic than views from the center of the street or a boat in midstream. Always break up the skyline with some irregularity if it is possible to



FRANK L. VENNING

THE RIVER

do so. The V-shaped light space above a narrow street picture, unless it is quite irregular, is very much lacking in sentiment. If possible choose a point of view where a tower, steeple or some such irregularity will break up the monotony of the decided straight lines. Of course such desired material is not always at hand and it then becomes simply a question of whether the view is worth making. The lines formed by streets, river banks, paths, lake shores, seashores and beaches are often the making or marring of landscapes. By careful handling they can be made to give fine perspective to the composition.

9. *Light and Shade.* — The monochrome artist loses much with the absence of color from his work, and he must arrange so that the gradations of light and shade will make up for it as far as possible. For this reason it is often found better to make certain views early or late in the day rather than toward noon. In the first case the shadows are long and soft and with plenty of detail and the gradations between the lights and shades are nicely blended. A picture made at noon has strong black shadows directly under the objects, the high lights are chalky and the gradations between light and shade are unpleasant and abrupt. Many people have a mistaken idea that good photographs are composed entirely of light and no shade. It is impossible to make a true picture without both light and shadow. The whole life and interest of a picture frequently lies in the shadows. Light and shade as well as lines may direct the eye to the principal object or motive of the composition. Lines are but the skeleton on which to build a picture with light and shade. Lines give facts, while light and shade give effects which can be varied by massing, contrasting, blending, and directing them at different times of day and from different points of view. Good strong transparent shadows, through which the detail is visible, always



W. SCHREMPF

AT SUNRISE IN HARBOR

add life, color and perspective to a picture. These can be secured by giving full exposures; underexposure always gives black, opaque shadows which are never pleasing. "Expose for the shadows and let the high lights take care of themselves" has been the rule for many years. The long, soft shadows of early morning and late afternoon are always beautiful and merit the careful study and appreciation of the worker. Snap-shots require intense light, but pictorial effect cannot be secured in the glare of the noonday sun. "Chiaroscuro" is the term used to designate the blending of lights and shades and the effect produced by their management. If the photographer strives for chiaroscuro and succeeds, he will obtain in monochrome the same effect which the painter does by means of colors. His picture will have light in shadow and shadow in light, so that the portions in shadow will have the detail and clearness of those in light, and those in light will have the roundness and softness of those in shadow.

The effect of chiaroscuro in a view may perhaps be most readily seen by looking at the landscape from the crest of a hill at noon and then again when the sun is low. On a clear day at noon a beautiful valley can be seen stretching away without haze as far as the eye can see; all is sharply defined and clear; the little village near by, the farmhouses dotted here and there, and the tracts of timber land. Such a view is pleasant to look at but very easily forgotten. Later in the day, when the sun is very low, the scene is entirely changed; the same view is seen but with an added beauty, softness, and an element of mystery. Every object has lost its harshness of outline; purple mists are rising along the valley in the distance and the long shadows and shafts of light thrown by the low lying sun reveal here and veil there. That which is veiled charms as much as that which is revealed. Such a view is felt rather than seen and the memory of it does not quickly depart. Photographs can be made what you wish; you can put feeling, sentiment, and individuality into them if you will; and if you make them not merely records of fact but effects, recalling the emotions felt when the view was seen, you will derive much more pleasure from the work and the results.

10. *What to Photograph.* — There is always strength in simplicity, and simple subjects always make the best pictures. All-inclusive photographs are far too much in evidence. The



W. H. ZERBE

JUST AS THE SUN WENT DOWN

fence corner, if it is sufficiently out of repair to be picturesque, a little pasture brook with trees bending over it, or a wooded path among the birches will lend themselves to the camera more readily than wider views. Study the best photographs and you will notice that those having scant material and often homely human interest generally appeal most strongly to the emotions. Selection—deciding what is needed in a picture—comes before composition. Usually the first hard lesson which the student encounters is learning to leave out what is not wanted so that the motive of the picture will not be hidden by the unnecessary small details. Composition brings these few carefully selected objects together into an artistic arrangement. The photographer is somewhat restricted in this arranging of the objects, but he can change his point of view by moving to the right or left, raising or lowering the camera and advancing toward or retreating from the objects. From an artistic point of view the ease with which exposures can be made with modern cameras is very disastrous to the results obtained. One should always try to get the best results possible for the time and money expended, and not form the habit of making any number of exposures, hoping some of them will prove good. Very often one hears a photographer boast of the number of plates he has exposed during an afternoon trip, when it would be much better to speak of the number of good pictures he has made. Try to see every view from an artist's standpoint, and if it has no artistic merit, do not make an exposure. Avoid weak, flat foregrounds, keep the middle distance less in evidence and choose backgrounds which harmonize with the subject. Look for pictures in your everyday life and you will have no trouble finding them.

11. *Personality and Sentiment.*—An earnest, thoughtful worker gives character and personality to his work. He puts something of himself into every view he takes, so that his individuality is seen in the picture. The value of this quality is self-evident, for without it a photograph is but a mere record of fact. If a dozen recognized landscape artists portray the same view they will probably produce as many entirely different results. Each photographer not only shows us the beautiful view he has discovered, but he also gives us a glimpse of the emotions which stirred him when he saw it. Being an artist, he has seen beauties which another



J. D. HASSON

OCTOBER WOODS

would not, and by studying the composition and the light and shade has been able with his knowledge of photographic technique to show us something of himself and his feelings in a successful picture. Personality cannot be taught, neither can it be forced by imitation. Try to make your pictures different from those of your acquaintances, which may be commonplace subjects treated in the usual way and entirely devoid of strength and character. Do not think, however, that personality is eccentricity; it is rather being honest and true to yourself. Have a definite purpose in making each view. Do not affect a style, but learn all styles, and never be satisfied with yourself; always strive to do better. Do not be governed by fashion or the critics, but render the subjects you love as your artistic taste dictates. If you study works of art, cultivate an artistic temperament and become a close observer of nature's ever changing harmony. The results will be pleasing to both the critics and yourself. When the worker has learned to see a picture on the ground glass, and to bring into its composition all the beauty, feeling, and sentiment possible, the reproduction of the view on a sensitive plate becomes a matter of mechanical skill. But this mechanical skill can never be perfect unless the worker takes time to study his picture and drink in as much as possible the beauties of nature it discloses. Suppose the subject is an evening landscape; you must feel the simplicity, the tranquillity, the breadth and solemnity of the scene. If you carry away a mental picture of the quietness of the low-lying clouds at the horizon, the dying gold of the afterglow, or the thin mist just beginning to rise in the distance, you are better prepared to use your utmost technical knowledge to bring out these beautiful effects in the negative. To succeed in doing this is to achieve the highest, finest, and best part of composition. Study the works and writings of the masters in art, remembering that the canons of art are not of cast iron, and should not be slavishly followed, While the worker will usually do well to observe them closely, some beautiful compositions are seen which are quite contrary to all fundamental principles. Such pictures immediately justify themselves, but they are very rare. Always strive for unity, simplicity, and harmony.



BERT CRAWFORD

AT EVENING

A DEVELOPING PROCESS BY WHICH FINE-GRAINED SILVER IMAGES ARE OBTAINED

A. AND L. LUMIERE AND A. SEYEWETZ

We have already shown that paraphenylene diamine and orthoamidophenol in a sodium sulphite solution may produce silver images resembling those obtained in the old wet collodion process. Since then we have tried to utilize other developers, and we have found that to obtain images formed of fine-grained silver, it is necessary to realize simultaneously the two following conditions:

1. Develop slowly by sufficiently diluting the developer, or by adding to the developer substances retarding the formation of the image.
2. Develop in the presence of a substance capable of dissolving silver bromide. This substance must not be in sufficient quantity to dissolve the silver bromide before the formation of the image.

The best substance for this purpose is ammonium chloride, which dissolves a little of the silver bromide contained in the emulsion, so as to bring into the developer a soluble silver salt; this salt in the developer has a tendency to reduce and the conditions are then similar to those of the wet collodion process; beside the ordinary chemical development, a physical development takes place, and the images obtained are exactly like collodion images.

Fifteen to twenty grams of ammonium chloride added to 100 cc. of developer have given very good results. It is probably necessary to obtain a certain relation between the speed of the



W. P. DANIELL, JR.

BIRCHES

chemical and of the physical development, and all the solvents of the silver bromide are not capable of giving good results.

We have found that if paraphenylene diamine and orthoamidophenol developers give fine-grained silver images without the addition of special substances which retard the development or dissolve the silver bromide, it is because they themselves realize the above-mentioned conditions. They have only a feeble reducing action and dissolve appreciable quantities of silver bromide, ordinary paraphenylene diamine developer dissolving 0.140 grams silver bromide per 100 cc. of developer and orthoamidophenol developer 0.134 grams, while a six per cent sodium sulphite solution without reducers dissolves only 0.112 grams of silver bromide.

Paramidophenol, having a far greater developing energy than the ortho derivative, does not produce a fine-grained silver image, unless some ammonium chloride has been added to its sodium sulphite solution.

The formula giving the best results with fast and normally exposed plates is the following: —

Water,.....	1000 parts,
Paraphenylene diamine,.....	10 parts,
Anhydrous sodium sulphite,.....	60 parts.

With slow plates, this developer will find an interesting application in the production of lantern slides. An ordinary normal hydrochinon developer will also furnish lantern slides of various colors by adding to it from 5 to 30 grams of ammonium chloride per 100 cc. of developer.



THEODORE EITEL

QUIETUDE

SWEET JACQUEMINOT

AGNES LOCKHART HUGHES

Ah! Crimson rose, deep fused with gold;
Your perfumed leaves rare secrets hold.
Unfold your petals, flower most fair,
And tell me what lies hidden there.
Your rosy lips — what would they speak?
What says the dewdrop on your cheek?
Within your heart lurks there a tear,
The while you smile upon me, dear?
Smile on — smile on — while yet you may,
Have no regrets for yesterday;
Live for to-day, my crimson rose —
To-morrow — ah, your fragrance goes,
Forth with the sands in Time's frail glass,
And you, sweet rose, must fade — alas!
Not from my memory will you die;
Within my heart enthroned you'll lie
Forevermore, till I shall cease to be;
Then on Eternal Shore, will you still bloom for me,
My fragrant, crimson rose.

EDITORIAL DEPARTMENT

THE ROAD TO ART

One arrives at art only by roads barred to the vulgar — by the road of prayer, of purity of heart; by confidence in the wisdom of the Eternal, and even in that which is incomprehensible.

— CHOPIN.

What is true of the art of music is equally true of art in photography. Counting out the rare artistic geniuses that appear not once or twice in a whole generation, it is a fact that artistic pictures can only be produced by long, sympathetic, intelligent, conscientious training in art matters. Furthermore, only those who have reached the higher stages of appreciation and creative power in art can hope to give forth the fine feelings, the exquisite fancies, and the great thoughts that characterize the work of the true artist. Such a training necessarily includes the development, not only of individual creative power, according to one's natural endowment, but also the development of individual appreciative power. One should be able to enter into the thoughts and feelings of the really great artists of the world to rightly appreciate them, and the creative activity will quicken the artistic sense, leading one to work towards higher ideals than those which he would otherwise perceive unaided. Thus it is that, given the temperament and training, one arrives at art only by prayer, purity of heart, and confidence in the wisdom of the Eternal, as stated above, by Chopin.

William Morris says, if you accept art, it must be part of your daily lives. You will have it with you in your sorrow as in your joy. It shall be shared by gentle and simple, learned and unlearned, and be as a language all can understand.

NATIONAL SCHOOLS IN EUROPE

National schools in photography exist. What may be dignified by the name of a national school of photography exists in Belgium, England, Germany, and in France; and even in the outlying regions of Russia, India, and Australia, there exist earnest workers striving to lift photography to the rank of an art.

In Belgium we find a mixed nation, speaking two languages, and its photography is accordingly imbued with both French and German characteristics, but is quite distinct from both. As the Flemish painters for many years have been striving for years to bring back the glory of their nation in art, by again reproducing national feelings, so also the photographers to-day are forming a national school by expressing national characteristics.

In England despite the separation of photographers into two groups, the Royal and the Linked Ring, a unanimity of thought, feeling, and expression pervades the whole work. The English photographer, with few exceptions, stays at home and photographs what is about him, his meadows, his cathedrals, his people, his home, and this love of home is the keynote of English character and success. His love of truth is reflected in his care for detail, his aversion to faking, and his inclination to make straight prints.

In the photographic works of Demachy, Dubreuil, Puyo, Le Begue, Lemoine, Madame Binder-Mestro, and others in France, we find all of the same general character; pictures full of grace and beauty. Graceful women posed nude or wonderfully draped; pleasing genre studies and landscapes full of tender beauty and the grace of cultivated parks; all the signs of civilization far advanced and possibly decadent. In other words, French photography portrays the national character just as the erotic and stylistic French literature and the impressionistic and sensuous French paintings of to-day do.

On the other side of the Rhine, in Germany, we find quite a different style of photography. Here are the masters of simplicity in landscape and portrait composition; every exhibition of

German photography is given its key by the massive and magnificent large gum prints in one or several colors by the Hofmeisters, Kuhn, Henneberg, Perscheid, and a dozen others as strong as they. The admiration for great size is a part of the German national character: Wilhelm is always seeking to widen German influence, to make his country great in war, in commerce, in diplomacy, in world-mastery. The simplicity of the composition of these pictures reflects the German tendency to concentration, to bending all efforts to a single end. Finally the somewhat gloomy and fantastic effect of these pictures reveals the imaginative strain so prominent in all German thought, a relic of their northern ancestry. Thus in all things German photography reveals the national character.

We might pursue the analogy, but enough has been said to show that in each of the great progressive countries of Europe national character has made possible and has created a national school of photography.

OUR FRIENDS — THE CRITICS

Our attitude in upholding photography as one of the fine arts, which we do not hesitate to proclaim whenever opportunity offers, is now widely known. The degree of enthusiasm with which we speak of our favorite topic depends very often on the character of pictures under consideration. Thus, the portraits of American musicians, which appeared in the May issue of the PHOTO ERA, and which justly excited universal admiration—in art as well as in musical circles—inspired us to make claims for photography as a fine art that created nothing less than a sensation among painters and their champions—the critics. Our statement that, in many respects, art-photography is on a level with painting as a fine art, and that henceforth portrait painters need look to their laurels, drew the fire of numerous professional art critics, chief of whom was the art censor of the *Boston Evening Transcript*, who, regarding our stand as inimical to the interests of painting, denounced us in unmeasured terms. Our reply was prompt and vigorous.

Now an eminent critic of Philadelphia, having informed himself about our exact views on painting as affected by the progressive photographic art, comes out very strongly in defense of the American painter. In his eagerness to deny to photography the least claim to recognition as a fine art, he charges us with being out-and-out iconoclasts, entertaining no respect for the masters in art and having for an avowed purpose the substitution of photography for painting. Nothing is farther from the truth. This good man indiscreetly reveals the dilemma of the painter of mediocrity, the author of unsuccessful portraits. As we have already pointed out, the poorly equipped portrait painter, barely able to gain a living, and whose work shows neither talent nor inspiration, sees in photography, as practiced by such artists as Strauss, Garo, Pierce, Zaida Ben Yusuf, Eickemeyer and others, a bogey. But like Banquo's ghost, the specter is obdurate and the Macbeths in art will be unable to stay their approaching doom. It is the dawn of a new art, called into being by Daguerre nearly seventy years ago, brought to its present state of development only within recent years and destined, at least, to replace the meretricious in portrait painting that has held sway so long. It may be that photography will force the painter to exert himself as never before, and that only the best will prevail. Thus will photography prove not only a boon to humanity, but a blessing to art.

A PLEA FOR TRUTHFUL PORTRAITS

An English exchange asks pathetically, "Are photographs of celebrities really 'likenesses' or are they not?" The Prince of Wales recently paid a surprise visit to the London Hospital and it is stated that not one of the many patients with whom he conversed, was aware of his identity. The writer claims that this is only one of many similar cases, and begins to wonder very much if the portraits of celebrities are really like them. We infer from the above that photographic portraits of royal celebrities do not resemble the originals, in England, at least, and the reason is not far to seek. When the portraitist by "Royal Command" points the camera at His Majesty

or Her Royal Highness, he evidently realizes the importance of flattering his subject, for here it will never do to steer too close to actual truth. So the artist discreetly turns out a portrait(?) in which every wrinkle and facial blemish has been obliterated and with every trace of character gone. For this the artist — may his tribe decrease! — is liberally rewarded; for this he is Photographer to H. M., and for this he enjoys prosperity.

How different, for instance, is the case with President Roosevelt. In looking at his photograph one is sure to obtain a fairly good impression of his strong individuality. He is of a kind that refrains from asking the photographer to improve his actual appearance by removing wrinkles or any of the facial characteristics. No photographer need hope to gain the President's favor by producing a portrait of him similar to those of which our English contemporary complains — inordinately youthful and good-looking, yet without character, expression or fidelity.

WALTER F. LANSIL

Walter F. Lansil, the painter of the thrilling picture "The Bon Homme Richard and the Serapis," alluded to in our article on Commodore John Paul Jones, may be classed among the greatest living marine painters. He is a master in pictorial composition and a colorist of the very first rank. As appreciative admirers of native American genius, we are proud to chronicle the fact that Mr. Lansil was born in Bangor, Maine. After having studied under Boulanger and Lefebvre in Paris, Mr. Lansil visited Holland, Belgium, Germany and Italy, and devoted considerable time to painting the characteristic beauties of Venice. So, although he excels in depicting the rugged charm of Dutch river craft — as exemplified by a masterly canvas owned by the Boston Art Club — our artist vainly seeks a rival in translating the wondrous beauty of a Venetian sunset. Nevertheless, Mr. Lansil has also achieved distinction as a painter of historical subjects, notably the stirring military picture entitled "The Midnight Charge at Chancellorsville" and, latterly, the large canvas portraying the memorable sea-fight between the "Bon Homme Richard" and the "Serapis," reproduced in these pages.

ANIMAL PHOTOGRAPHY

The form of animals has been used as an art motive in decorative painting and sculpture in all ages. Like the human figure, when treated with simplicity and dignity, the animal figure is always effective in interpreting the character of the different animals portrayed. "What the Greeks did for the horse," says Ruskin, "and what, as far as regards domestic and expressional character, Landseer has done for the dog and the deer, remains to be done by art for nearly all the other animals of high organization. There are few birds or beasts that have not a range of character which, if not equal to that of the horse or dog, is yet as interesting within narrower limits and often in grotesqueness, intensity, or wild and timid pathos more singular and more mysterious." The beautiful pictures of the buffalo in this issue render the life and individuality of this creature in a wonderfully realistic way. As studies in repose and action, they portray the strong, bony framework and powerful muscle of the animal with a sincerity and frankness and vigor, worthy of a Landseer, a Church, or a Bonheur. Ernest Harold Baynes, the author, is one of the cleverest of our photographer-naturalists, and his devotion to the work of saving the buffalo from extinction amounts almost to a high public service.

Mr. Baynes is not only himself enthusiastic on the photography of buffalo, but wishes to make others so, and to preserve as complete a series of records of this noble animal as possible. Through his kindness we are enabled to offer copies of his buffalo photographs in exchange for similar pictures taken by any of our readers, and we urge upon any who may be near enough to grasp any opportunity of photographing the animals.

To all of our readers interested in animal photography, we recommend the recent issue, No. 13, of the *Practical Photographer*, devoted to this subject. It is a monograph clear and explicit, setting forth the details of this kind of photography in a most valuable manner.

THE ROUND ROBIN GUILD

*Conducted by Elizabeth Flint Wade. Specially designed for the amateur photographer and the beginner.
Membership may be obtained by sending name and address to the PHOTO ERA.*

No doubt many members of our Guild are strolling along "Country Roads" searching for some especially picturesque turn or vista to embalm in gelatine and send to the competition closing the last day of this month, the subject of which is "A Country Road."

No thoroughfare is so fascinating as an old road, those bridle paths of the seventeenth-century comers, bridle paths which in many cases were formerly the trails of the bronze-faced people to whom the country first belonged. These ancient highways turn and twist and wind for miles through silvan solitudes as impressive as in colonial days. Often they are designated by some distinctive name which recalls some tradition, some romance, or some historical event. Others take their names from a brook or stream which the road follows. One charming old road is known as Honey Pots Brook Road and leads through delightful scenes, each turn of the road seeming more beautiful than the last. It is bordered with chestnuts and locusts, hoary patriarchs that stretch their lichen-covered branches protectingly across the pleasant highway. Wild apple-trees stand here and there, old, and gnarled, and twisted, but in spring adorned in palest pink and scattering sweetest odors, and in autumn hung with tiny red or yellow globes, the favorite fruit of the Walden philosopher.

The neglected borders are a tangle of hardhack, sumach, briar rose, and wild grape; while dandelions, daisies, milkweed, asters, golden rod, etc., in turn spread a band of color along the way.

To one in search of historical as well as picturesque view points, many will be found along the old Connecticut and Massachusetts roads. A specially pretty turn in the "Old North Road" in Connecticut which runs through Winsted bears the name of Ethan Allen's Corner. Tradition relates, — and in this case tradition is a true tale, — that Colonel Ethan Allen while on military service in Connecticut during the Revolutionary War, presumed to desecrate the Sabbath day by traveling along this road. When he reached this point now known by his name a certain Jonathan Balcom sprang out of the bushes and seizing the Colonel's horse attempted to arrest him as a Sabbath breaker. Colonel Allen drew his sword and flashing it about the head of his assailant, exclaimed: —

"Get back into your hole, you old woodchuck, or I will cut your head from your body!"

The zealous but cowardly Balcom turned and

fled, and the scene of the encounter has since that time been known by Allen's name.

This incident is not of special historic interest, and a picture of the spot would not be found worthy of a place in the collection being made by the National Historic Picture Guild, but there are many historic points along these old thoroughfares which ought to be pictorially preserved. One cannot be too expeditious in making historic pictures, and obtaining all the facts possible in relation to them. One is quite apt to overlook those things that lie close at hand, and go far afield for material. One should not forget that opportunity is like a pin in the sweepings, just as it seems ready to be grasped the dust swallows it up and it is lost.

A recent fire has destroyed a most interesting landmark; and though many pictures were made of the exterior of the building, as far as can be learned not one has been made of the interior. An amateur living in the vicinity laments the fact that he had neglected taking pictures of the interior, thinking he could get them any time, but the "any time" in this case has proved "no time."

It is not alone the photographer, but also the chronicler who is called upon to mourn his procrastination. A compiler of a local history had depended for much of his material on an old lady of eighty years who had always lived in the town and whose memory was such that it was almost a perfect record of events that had transpired during her lifetime, but while the compiler was looking up more distant sources of information, the old lady was taken suddenly ill and died, and this one valuable source of information was forever beyond his reach.

We have just received from Mr. H. Husted, for the Historic Guild collection, pictures of the old Franklin House located in Woodbury, N. J. This house, writes our correspondent, is the oldest house in the town. By its style it belongs to the better class of houses built in the early part of the seventeenth century, of which few remain. During the Revolutionary War it was occupied as headquarters by Colonel Christopher Greene of the American forces, who with only four hundred men defeated the Hessian army of twenty-six hundred commanded by Colonel Dunop, at the battle of Red Bank, Oct. 27, 1777, and lost only thirty-two men, some of these by the bursting of a cannon, while the Hessians lost over three hundred.

We hope during the present season to receive

many more as valuable pictures as these just sent by Mr. Husted. Do not neglect the opportunity.

"The day is this; the time is now;
No better hour was ever here."

Let us all be up and doing while there is time. Do you not recollect the fatal mistake of the man in the Bible and how he gave his excuse sadly,

"And as thy servant was busy here and there, he was gone."

SILVER CHLORIDE

SEVERAL of our members have asked to be enlightened as to the special nature of silver chloride, the explanations in the various guides to photography omitting all but the most meager details, and most of them saying nothing whatever on the subject.

This is to be regretted, as the more one knows of the nature of the material with which he works, the better will be the results.

The sensitive agent used in making photographic printing-out papers, called chloride of silver, is found native in silver mines, and is commonly called by the miners "horn silver." It is formed whenever a soluble chloride is combined with a solution of nitrate of silver. When pure, it is white in color, but when exposed to the light it discolors very quickly, turning first a faint violet and at last to a deep purplish black. It is the chemical action of the light which produces this discoloration or darkening of the silver chloride, and this darkening changes it into a different chemical compound. Chemists generally agree that this change produces subchloride of silver.

(A molecule of chloride of silver contains one atom of silver and one atom of chlorine. The subchloride contains two atoms of silver and one atom of chlorine. A subchloride always contains more of the base than of the acid. In this the silver is the base.)

When a piece of sensitive paper coated with silver chloride is placed under a photographic negative and exposed to the light, the light reaches its surface through different degrees of thickness of the film, consequently the discoloration is not uniform, and takes on the form of the negative. When the paper is taken from the printing frame it contains the new compound in different proportions, these proportions giving the effects of lights and shadows.

In one sense the print when taken from the frame is permanent, but if not kept from actinic light the portions still unchanged or partly so would begin to decompose and in a short time the surface of the paper would be covered with a uniform deposit of subchloride of silver.

The preservation of the image formed, and removal of the unchanged silver chloride was a problem which long puzzled the early experimenters in photographic science.

The best solvent for the unchanged silver salts was at last found to be hyposulphite of soda. When a silver print is placed in a solution of hyposulphite of soda the silver chloride and the hyposulphite of soda form a new chemical compound called silver-sodium hyposulphite, — a double salt which is quickly dissolved in the solution of hypo and which is easily washed out of the paper. In order to produce this result it requires a certain amount of hyposulphite, each molecule of the silver chloride needing three molecules of the hypo to form the soluble double salt. If the solution contains less than this proportion, a new compound is formed which will not dissolve, nor will it wash out of the paper. If a print is placed in too weak a bath, or is not left in it long enough for the unused chloride of silver to unite with the hypo, the print will turn yellow.

The action of the hypo on the subchloride of silver turns it an ugly yellowish red color, and in order to produce a pleasing tone the print is submitted to a process usually called "toning," but which might be more properly termed "coloring."

Gold and silver have a great affinity for each other. Gold combines readily with the silver subchloride, turning it to tones of browns and purplish blacks. A silver print is placed in the gold bath, and the gold is deposited on the silver something after the manner of gold-plating. The colors of the two metals mingle and give the different tones which one may make on a silver print. A print of an unpleasant blue-gray tone has too great a deposit of gold on the silver, — in other words, it is over colored.

The print after being colored in the gold bath is placed in the hypo bath, which dissolves out the unused chloride of silver, then washed, and a permanent picture is the result.

The color of the prints may be changed or modified by adding different chemicals to the coloring bath of gold. Salts of lead will change the bluish black to gray, ammonia or carbonate of soda will change the color to a warm brown.

Every silver print toned with gold contains four parts of silver to one of gold, the quantity of both being very small.

There is a great deal of waste in the silver used in photography, there being thirty-three times as much silver used as remains after the print is finished.

IMPERFECTIONS IN NEGATIVES AND THEIR CAUSE

ONE of the rarest things to obtain is a perfect negative. There are so many things in a negative one would like to eliminate and so many things left out one would like to have in, to say nothing of the blemishes in the plate itself, that nearly every negative requires some sort of treatment before it is in condition for the printing process.

When a negative lacks contrast, the film thin, but with abundant detail in the shadows, it indicates an overexposed plate. Such a condition, however, may be caused by using a weak developer and stopping development too soon; by a predominance of alkali in the developer; or by the subject itself being flatly and dimly lighted.

When there is strong contrast, the high lights dense without much detail, and no detail in shadows, the cause is underexposure. The use of a developer strong in restrainer will also produce a like result, though the general cause is underexposure.

Round or oval shaped spots on the plate which are not fully developed show that the developer did not cover that portion as quickly as it did the rest of the plate, and consequently the development was delayed. Irregular lines across the plate are due to the developer not entirely covering the plate at once; and while there is no remedy for this defect in the plate, it can be prevented by pouring the developer quickly over the plate and rocking the tray to and fro a few times, allowing development to proceed evenly all over the plate.

Small spots with sharp, dark edges are due to air-bubbles forming on the plate when the developer is turned over it. If the tray is slanted a little when the solution is turned over it air-bubbles are seldom formed.

The small transparent spots which appear in a negative after developing and fixing, and known by the name of "pinholes," are caused by dust on the film which sticks to it and does not wash off when the developer is flowed over it, or by impurities in the developer which settle in the film. Sometimes the defect is in the emulsion with which the plate is coated, but this is of rare occurrence.

If plates have been some time in the holder and there is a possibility of there being dust on the film, do not dust the plate before putting it in the developer. Place it in the developer, then with a piece of clean surgeon's cotton swab the surface of the plate gently and all dust will be removed without the danger of scratching the film if done when the plate is dry. Used developer should always be filtered before using the second time, thus avoiding a fruitful source of pinholes.

If the negative after washing and fixing is covered with fine markings like crackles, it shows that the tray was not rocked sufficiently during development.

If after developing and fixing the negative turns yellow, it indicates that the plate was not left long enough in the fixing bath, or that the bath was too weak. The unused silver salts in the negative when put into the hypo unite and form a double salt called "silver sodium hyposulphite." The hypo solution must be strong enough to dissolve this salt as well as to form it. In time this will destroy the image on the negative unless it is thoroughly dissolved and washed out.

A whitish appearance to a negative when washed and dried indicates that the plate was not washed long enough after it was removed from the fixing bath. As soon as this condition is observed, the plate should be put again in the fixing bath, and then washed for half an hour in running water, or in several changes of water.

Fog, a common defect in a negative, is of two kinds, — chemical fog, and the fog caused by light striking the plate during or after exposure. Chemical fog is caused either by the emulsion which covers the plate not being properly prepared, or by too much alkali in the developer, or by too prolonged development. Chemical fog may be known by its giving to the image on the glass the appearance of being covered with a thin veil of uniform color. "Light" fog, if local, may be quickly removed with alcohol, applied by dipping a piece of clean chamois in alcohol, drawing the chamois over the end of the finger and rubbing the spot until the film has been reduced to the same density as the rest of the plate. Halation around a window, which is a species of local fog, is very easily removed by this method.

In the January number of the PHOTO ERA for 1904 will be found an article on fog, with detailed directions as to treatment of fogged plates.

ROUND ROBIN GUILD COMPETITIONS

COMPETITORS in the Round Robin Guild competitions would do well to note the regulations in regard to the sending of prints to be entered in the competitions. A print which takes time and care to make deserves to be well protected when packed to send through the mails. The packing must be strong, or the prints are very apt to be broken or torn in their transit. The prints should be protected front and back with corrugated board with the corrugations running at right angles to each other, then wrapped in heavy paper and tied with string. In winding the string around the package, see that it loops wherever it crosses. More often than not the string is tied and simple crossed, which allows it to be easily detached from the package. These packages must not be sealed. Often senders seal the package and further close it by using sealing wax. This compels the receiver — in this case the PHOTO ERA — to pay letter postage. Each picture must be mounted and the name, address, and Guild number of the sender written on each picture sent. In the competition just closed there were many pictures which had no name or address or any means of ascertaining to whom they belonged. Quite a number were sent unmounted. Will competitors who do not know the rules look them up in the PHOTO ERA or drop a line to this office and a circular will be forwarded? This advice is given in the interest of the competitors.

Subject for the July competition, "Water Craft." Closes August 31.

First prize: A yearly subscription to *Art in Photography*, value \$10.00.

Second prize: \$5.00 in photographic books or magazines, published or advertised by us, to be chosen by the winner.

Third prize: The choice of a yearly subscription to the PHOTO ERA or the *Practical Photographer*.

Fourth prize: One number of *Art in Photography*, value \$2.00.

AWARDS

The entries in the "Still Life" competition were disappointingly few in number, and after due consideration none was found worthy of a prize or of reproduction. Honorable mention was awarded to Phil. Hexom for "Delicious Fruit," and to H. F. Robinson for "Fleur de Lis."

SUBJECTS FOR COMPETITION

June. — "A Country Road." Closes July 31.

July. — "Water Craft." Closes August 31. Any marine pictures in which water craft are an important feature.

August. — "Trees in a Landscape." Closes September 31. Any picture in which more than one tree enters as an important feature of the composition.

September. — "Foreground Study." Closes October 31. Any picture in which the foreground or object in it forms the chief interest. The space above the horizon line may not be more than one quarter of the picture.

RULES

Any number of mounted prints may be submitted by any member of the Round Robin Guild. Membership in this is free, and may be obtained by application to this office. One or two recent prize winners who are not members of the Guild may obtain their prizes by joining.

Every print must bear on the back the title, author's name and address, and Guild number, with the words "Round Robin Guild Competition." Unsuccessful prints will be returned if postage is enclosed and request to that effect written on back of print. Prints not so marked are liable to destruction after judging.

ANSWERS TO CORRESPONDENTS

H. S. TANKARD. — One may become a member of the Round Robin Guild independent of the size or make of camera he uses. In sending prints to the competitions, prints under 4 x 5 are not desired, though they are admitted.

K. THEODOR KRANTZ. — Any amateur may become a member of the Round Robin Guild by sending name and address and stating wish to become a member. We are very glad to welcome you as a member and hope to see some of your work. Membership card and circulars have been mailed to you.

F. S. — To prevent the frilling of your films, which is due to the solutions in which they are developed or the water in which they are washed being too warm, fix them in an acid fixing bath. A good acid bath is made of 5 oz. of hypo dissolved in 16 oz. of hot water; when dissolved, add $\frac{1}{4}$ oz. of powdered alum. Allow the solution to cool and settle. It is better to prepare this bath twenty-four hours before it is needed.

B. W. C. — "Positive" is the term applied to a print made from a photographic plate, showing the lights and shadows as they appeared in the subject from which the picture was made. In the negative these lights and shadows are reversed, the picture looking dark where in the object or objects it is light.

CARL F. — An unexposed plate which has been placed in the developer by accident is spoiled for a negative, but it may be used for making a blue transparency. Directions for making blue transparencies were given in a recent number of the Guild department.

HELEN G. — The developer which you say has turned black is oxidized and is no longer fit for use. To prevent further trouble of this kind, pour a little melted paraffin over the cork, sealing the contents of the bottle from the air.

ANSON J. — You will find the pocket camera a very convenient camera for use on a walking tour. The instrument and a number of rolls of films will add no special weight to your outfit. As you say, the pictures are small, but they are usually very clear and distinct, and make fine enlargements. You will find this kind of camera less burdensome than one which you must carry suspended from a strap.

SARA L. T. — A good formula for hydrochinon developer is made as follows: Solution No. 1. Hydrochinon, $\frac{1}{2}$ oz.; sulphite of soda crystals, $2\frac{1}{2}$ oz.; bromide of potassium, 5 grains; water, 25 oz. Solution No. 2. Caustic potash, 180 grains; water, 10 oz. For use, take 4 oz. of No. 1 and $\frac{1}{2}$ oz. of No. 2. This developer keeps well and gives images of a velvet-black color, fine in grain, and with clear detail in the shadows. The caustic potash is an accelerator, and for under-timed negatives add a little more to the developer if the image does not come up strong enough.

O. W. STOUGHTON. — Any member of the Guild has the privilege of the photographic exchange. If you wish to exchange prints with other members, send a notice to the editor and it will be inserted in the Guild department without any charge.

GRACE F. DEAN. — Directions for making ferro-types could not very well be given in the "Answers to Correspondents," as it would take up too much space. We will try to give an article on the subject in an early number.

A. A. N. — Both Wilson's and Woodbury's are good encyclopedias of photography. It is hoped that a new encyclopedia of photography

giving the latest developments in photographic science will soon be ready for publication.

L. R. Y. — Try the non-curling films and you will find they will lie perfectly flat after developing and washing. They cost the same as the others. In drying they must be pinned up by the corners, because if they are pinned flat against a board they will stick to the board, as they are coated on both sides, though only one side is sensitized.

GEORGE WARREN. — To remove yellow stains from prints, place them in a weak solution of bichloride of mercury. As soon as the print is bleached, rinse, and place for three minutes in a hypo bath, 1 oz. of hypo to 4 of water. Wash well.

BURT W. — By all means use platinum paper if you wish to have the collection of prints you are making retain their first distinctness. A platinum and a blue print seldom change color. Of course a carbon print is permanent, but it is not so simple a process as the platinum, with which you are already familiar.

PRESTON D. S. — Films may be rendered impervious to heat by soaking them after developing, fixing, and washing, and before drying, in a solution made of formalin, $\frac{1}{2}$ oz.; water, 10 oz. Let them remain five minutes in this solution and they may then be dried by rapid heat without danger of melting the film. The formalin does not change the quality of the negative.

G. D. E. — A set of rubber finger tips, three in number, will be sufficient for protecting the fingers when using poisonous photographic solutions. Rubber gloves are expensive, and as one is quite liable to cut the rubber when handling negatives, it is not good economy to buy them for photographic use.

FRANK O. — All trays should be washed after using. The decomposition of the chemicals in an unwashed tray will often spoil a fresh solution

if put in the tray. If trays are very dirty, a solution of muriatic acid will clean them, 1 oz. to 20 of water being the proportion. Do not leave hypo standing in your trays and use it over and over again. The discolored hypo stains the plate, and that is doubtless what is the matter with the negative you ask about. Hypo is so cheap it is much the wiser plan to make a fresh solution when wanted for use.

ROUND ROBIN GUILD GROUPS

MISS MARTHA MITCHELL, 4201 Ellis Avenue, Chicago, Ill., wishes to join one of the Round Robin Guild Groups. Miss Mitchell would doubtless be glad to form one in her locality.

James A. Young, Pictou, Ontario, Canada, would like to join a Round Robin Guild Group. Members please note the addresses and correspond with these members.

PRINT EXCHANGE

MR. EUGENE N. BOUDREAU, 25 Williams St., Plattsburgh, N. Y., would like to exchange prints with other members. Has prints of historical subjects, local life, and local scenery. Plattsburgh and vicinity is specially rich in historical associations, and this opportunity of exchanging prints and securing some excellent historical views is well worth the attention of our members.

FOR SALE AT LESS THAN $\frac{1}{4}$ COST PRICE

A MEMBER of the Guild wishes to sell an Eastman Box Camera 5 x 7, two sets of lenses (one wide angle). Bauch & Lomb rising front, swing-back, 12 double plate-holders, 5 kits for 4 x 5 plate, steel tripod with case. Samples of the work it will do sent, if desired. Address H. W. Noyes, 20 West St., Portland, Me.

NOTES AND NEWS

WE take pleasure in extending our congratulations to Mr. Alfred Stieglitz on his election as an honorary fellow of the Royal Photographic Society of Great Britain. As we mentioned in a recent number, Mr. Stieglitz has received the medal of the Society for pictorial merit three times, more than any other American exhibitor, and this latest honor bestowed upon him is a high tribute to his achievements in advancing the standards of artistic photography. The distinction is more unusual, as this fellowship has usually previously been granted for scientific attainment.

THE progressive photographer who wishes to understand his business finds no better method than by inducing his customers to have large framed portraits made from satisfactory negatives. It is comparatively easy to get an order for a life-size

head of almost any customer. The Sprague & Hathaway Company of West Somerville, Mass., are prepared to do the remainder of the work of making the portrait and frame of the highest quality and at the lowest price. This firm is one of the oldest established in the United States and has a wide and justly deserved reputation for enlargements of all kinds, frames of wood and metal and portraits and miniatures on ivory and celluloid. We would advise all our professional readers who are not already acquainted with this firm's work to get into communication with them at once. During the annual Convention in August, the extensive works of the firm in West Somerville will be opened at all times to visiting photographers and a most cordial invitation is extended to all members and guests of the National Association to inspect the plant at any time during the Convention period.

SOMETHING ENTIRELY NEW

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YIELDING PRINTS RICH IN DETAIL AND OF BEAUTIFUL TONE

Price 20 cents per dozen. \$2.00 per gross

ROTOGRAPH—The best bromide paper in the world for enlarging work or contact printing from strong negatives.

ROTOX gaslight papers give the greatest detail and richest prints of any developing papers made.

CARBON PIGMENT PAPERS. The best and most simple papers to work; note the following:

"I want to tell you that as a photographer who began work in 1887 I have never seen a Carbon print made with such ease as those I have just made with your papers, and I shall publish the fact with pleasure."

Send stamps for copy of PHOTO CRITIC and other interesting printed matter.

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Printed, developed, dried, ready for use, is what one of our Patented Electric Photo Printing Machines can do. ¶ We print to order photographs in any size and quantity on our celebrated "Rotograph" Bromide Papers. ¶ When inquiring for prices, state size and quantity desired.

The Rotograph Company

771 EAST 164TH ST., NEW YORK CITY

NOTES AND NEWS

PHOTOGRAPHERS who are preparing for their summer outings should not fail to provide themselves with shoes equipped with O'Sullivan Rubber Heels, as one of the most essential parts of their outfit. Those who have the intention of taking walking trips loaded with a camera and supplies will find that the labor of tramping is materially reduced by the resilient heel cushions. For climbing, especially when the rocks are wet or icy, the clinging heels give a valuable sense of security, and materially reduce the danger of slipping. For treading the wet decks of yachts they are indispensable, giving the safety of rubber-bottomed footwear, together with the firm support of leather for the instep and ankle. In golfing they halve the exertion and double the pleasure. In short they are necessary for every one who desires to live outdoors in the summer, and we advise their use by every reader.

THERE is no toilet article in the selection of which greater care should be used than a toilet powder. In these days of imitation and substitution there is so much of inferior goods on the market that it is necessary to be continually on one's guard. Highly scented toilet powders are so frequent as to be a continual source of danger. Such inferior products will often do a permanent injury to a delicate skin. It is far wiser never to take chances with an unknown article. Be sure, rather, to insist upon a trade-marked product of recognized merit. With toilet powder, as with most other lines of goods, it is safer to trust an old-established house with years of experience and a reputation for making only the best. Mennen's Toilet Powder is a trade-marked article, which has for years been recognized by physicians as the best preparation made. The absolute purity of its ingredients and the exercise of the greatest care and skill in its manufacture have given the product of the Mennen Co. a quality of uniform excellence. That is why your physician recommends it.

All first-class dealers carry Mennen's Toilet Powder and will supply it if you insist. It is supplied by the Government for both Army and Navy.

THE Tenth Annual Photographic Contest of the *Youth's Companion* has been announced, with awards aggregating more than \$1000. The contest this year is arranged on a new plan, as all the classes for men, women, and young people have been abolished, and everybody will compete on an equal footing. The Grand Prize and the six graded awards are certainly tempting enough to appeal to every photographer. Besides these awards, which are made for a set of five or more pictures in which human life is the central interest, there are six classes for work of different character.

For fuller information, we refer our readers to the announcement published elsewhere, and to the circular which will be sent to any reader of the PHOTO ERA on request.

DR. EDWARD BURTON McDOWELL has lately returned from an extended trip in Panama where he did a large amount of photographic work. In a letter concerning this work, in which Dr. McDowell most interestingly relates some of his photographic experiences, he takes occasion to pay a very high tribute to the excellence of the Hammer Orthochromatic plate, which he considers unequaled for work of this kind. He says in part, "Your Orthochromatic is my ideal, and I am sending you herewith prints to illustrate its Ortho qualities; in fact, I am greatly elated over my success, for my negatives run very evenly for quality, etc."

AMONG the new inventions for avoiding the use of a dark room is Obifo, which is being placed upon the market by the Prindle Process Co. of Boston. This is a colorless material in the solution of which a plate is immersed before development. According to the claims of the inventor, when this solution is used the plate may be loaded in daylight and developed in the same way, producing perfect negatives. The broad claim is made that for loading and developing, the dark room is not necessary, neither is any dark box, bag, cloth or other device required as a substitute. For further information we refer our readers to the advertisement.

THE special features of the "Cirkut" camera are: the use of films of various widths up to ten inches, its capability of making views of any length up to 360°, the use of objectives of different focal lengths, a device for accurately focusing the image on a glass screen, a device for swinging the lens instead of the back of the camera, and for raising and lowering the front board. To these must be added the fine workmanship shown in the substantial yet light construction, the camera weighing only 18 pounds complete, and being in size 9 x 12 x 12. It is easily and quickly manipulated. The film can be put in or removed from the holder in full daylight, a feature well adapted to field work. In fact, the camera is so constructed as to render mistakes impossible.

WE are pleased to note that the money prizes offered by the National Association have been duplicated by the General Aristo Company of Jamestown, N. Y., which lends a double incentive to the members of the Association to turn out finer work than ever this year at the Boston Convention.

NOTES AND NEWS

Gentlemen:—We take pleasure in announcing through your valued columns, that we have decided to open a photographic competition for a new catalogue cover, and are offering \$300 cash prizes for the best work submitted.

The pictures entered will be judged solely for their artistic value and their appropriateness for cover designs.

The competition is open to all amateurs and professionals, the only restriction being that the picture submitted be made with a Goerz lens.

All requests for information will be cheerfully answered. The envelope should bear besides our address, the mention "Catalogue Cover Competition."

Pamphlets giving full particulars and conditions can be had from all dealers, or on application, from the C. P. Goerz Optical Works, 52 Union Square, E., New York, and Hayworth Building, Chicago.

We remain with thanks,

Yours very truly,

C. P. GOERZ OPTICAL WORKS.

Boston, Mass., June 7th, 1905.

My dear Mr. Cummings, —

Referring to your editorial comment on the Entertainment Fund in the June number of the PHOTO ERA as follows: "The contributions are entirely voluntary, not levied or assessed as *The Photographer* would have us believe, and the money is spent in legitimate entertainment for the entire body of the convention." As you have asked for the real facts, it gives me pleasure to give you the evidence supported by the records of the association, which I believe fully justifies the position you have taken in your editorial. I am enclosing a list of the entertainments given to the members of the association since 1898, including both manufacturers and photographers, no questions being asked who should share in these privileges (ladies or gentlemen), if they wore the badge or button issued by the treasurer of the association for that year. By reference to this list you will note the only year I fail to account for the source of supply is at Milwaukee in 1900, where I am not informed as to whether the photographers solicited the funds for the entertainment at the German Club, or whether this affair was handled by the manufacturers. In all other years excepting this present year the manufacturers had this matter in charge when not conducted by the association itself. This led the present board to feel that the manufacturers had formed the precedent of making these contributions, justifying the course the committee have adopted this year in asking for funds so that we might advertise in advance to our photographers the good things they might expect from the manufacturers and dealers of this country. Here I may add that we now have funds and promises from responsible firms sufficient to

successfully carry out plans this year. The ill-advised action of *The Photographer* and *Wilson's Magazine* has created some present misapprehension which will be as fleeting as the winds, and when the cloud shall have blown by and the skies shall have cleared, the Photographers' Association of America, represented by their executive board of this year as well as past years, will stand with an untarnished record as to its loyalty to its members, both manufacturers and photographers. It has been the policy of the board at all times in the past as in the present, to care for the interests of no one person or set of persons to the disadvantage of another. If occasion arises, and it is desired, I shall be very glad to give you further information, that harmony and the best interest of the association be preserved, whose interests for the past seven years as an officer, I have loyally sustained and desire to defend. Believe me,

Very sincerely yours,

F. R. BARROWS.

Treas. P. A. of A.

P. A. OF A. CONVENTION ENTERTAINMENTS

- 1898 Celoron, theater entertainment by manufacturers not solicited.
- 1899 Celoron, clam bake entertainment by manufacturers not solicited.
- 1900 Milwaukee, theater party, courtesy of Wisconsin Photographers.
- 1900 Entertained at German Club, dancing and refreshments.
- 1901 Detroit, sail down St. Clair River by General Aristo Co.
- 1902 Buffalo, trip to Niagara Falls (trolley) by association.
- 1903 Indianapolis, concert and refreshments, courtesy of H. Lieber Co.
- 1903 Entertainment, at Fairbanks Park by association.
- 1904 St. Louis, too busy, World's Fair taking all spare time.

At the annual meeting of the stockholders of the Joseph Dixon Crucible Company the old board, consisting of Edward F. C. Young, John A. Walker, Edward L. Young, William Murray, George T. Smith, Joseph D. Bedle, and George E. Long, was unanimously reelected. The board of directors reelected the former officers, namely, Edw. F. C. Young, president; John A. Walker, vice president and treasurer; George E. Long, secretary. Judge Joseph D. Bedle was also reelected as counsel.

The stockholders present expressed themselves as thoroughly satisfied with the management of the company by its officers.

Of the total number, 7345 shares, there were represented 7145 shares.

PHOTO ERA THE AMERICAN JOURNAL OF PHOTOGRAPHY

VOL. XV

AUGUST, 1905

No. 2

PUBLISHED AND COPYRIGHTED BY PHOTO ERA PUBLISHING COMPANY, 170 SUMMER STREET, BOSTON, MASSACHUSETTS
Entered at Post Office, Boston, as second-class matter

Editor: THOMAS HARRISON CUMMINGS

Associate Editors: M. O. SAMPSON, FRANK ROY FRAPRIE, S. M., WILFRED A. FRENCH, A. M., HERBERT W. TAYLOR

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The annual subscription in the United States, Canada, and Mexico, | Subscription in other countries in the Postal Union \$3.50
is \$2.50. Single copies, 25 cents each | Always payable in advance

ADVERTISING RATES ON APPLICATION

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R. DUEHRKOOP, HAMBURG
THE LADY WITH THE MIRROR



PHOTO ERA

The American Journal of Photography

VOL. XV

AUGUST, 1905

NUMBER 2

ECLIPSE PHOTOGRAPHY

EDWARD S. KING

(Assistant in charge of photography at Harvard Observatory)

When parties are being formed to go to Labrador or abroad to observe the coming eclipse, I wish that some enterprising person would charter a cannon ball express scheduled to start from near Hudson's Bay on the morning of August 30, and that at sunrise (the conductor's "All aboard") we might speed down the track of totality in company with the moon's shadow across the Atlantic, through Spain, Tunis, and Egypt, ending our three-hour trip in Arabia at sunset, the shortest yet grandest day of our lives. Such an experience would give as much time for observation as if one had witnessed every total eclipse of the sun for a century. When contemplating the richness and importance of the results, it is hard to realize that the entire duration of totality of observable eclipses has been only about thirty minutes since photography has been actively employed. The earliest photograph of a total eclipse was a daguerreotype made by Busch at Königsberg in 1851, although eclipse photography is generally regarded as having begun some nine years later, in 1860. The devices employed have ranged from a kodak and a simple wooden camera propped up on the box in which it had been packed, to a telescope 135 feet long, and to what may be called the machine gun of photography, a battery of cameras, spectroscopes, polariscopes, etc., all under the control of a pneumatic commutator, by which hundreds of exposures may be made automatically during the precious period of totality, without fear that some observer will lose his head and forget to uncap his instrument.

Two of the leading features of the work on the present eclipse will be the search for an intra-mercurial planet, and a more complete study of the corona. From certain irregularities in the motion of Mercury, it has been suspected that there might be a small planet very near the sun, which would not be ordinarily visible on account of the intense light. The Lick Observatory, for example, will take photographs at three different stations, in Labrador, Spain, and Egypt, with instruments identically alike. With such instruments Professor Perrine photographed stars as faint as the ninth magnitude, at the eclipse of 1901 in Sumatra. A long, narrow strip of sky was covered with a duplicate set of plates on either side of the sun. A comparison of these plates with each other showed what objects were really celestial, while a comparison with other plates of the same regions made with the same instruments some months previous indicated the known stars. In spite of the clouds which interfered, the general result may be summed up, that for the region examined there appeared to be no planet as bright as the fifth magnitude, and for two thirds of this region none as bright as the seventh magnitude. It is hoped that the present eclipse will settle this question. It is an interesting fact that, if observations are obtained at the three stations, and a planetary body is found on all the plates, not only will the discovery be confirmed, but the lapse of time between the observations will permit the path of the new member of our system to be readily computed.

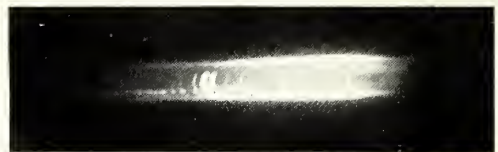
Photographs of the corona of considerable size and taken at widely separated stations will have great value in determining any change of structure which may have occurred during the



CORONA OF 1893.
HARVARD ECLIPSE PARTY, CHILI



CORONA OF 1900. MR. C. A. R. LUNDIN
AT SOUTHERN PINES, N. C.



FLASH SPECTRUM OF 1893.
HARVARD ECLIPSE PARTY, CHILI

intervening hours, or in detecting any general movement, such as a rotation with the sun. It has been suggested that photographs thus taken with similar instruments might advantageously be studied with the stereoscope, which would give a plastic effect. That the form of the corona does change materially in time is shown by the photographs obtained at different eclipses. It appears to bear a distinct relation to the eleven-year period of sun spot frequency. At the maximum of sun spots the form is nearly circular, and the streamers are more equably distributed, as in the eclipse of 1893; while near the sun spot minimum the equatorial streamers are much more prominent and long wings appear extending out from the zone of sun spot activity, as in 1889 and 1900. It may be expected that the present eclipse will be similar to that of 1893, and that there will be no long streamers.

Ordinarily no one photograph can do the corona adequate justice, as a short exposure will give details only near the edge of the moon, while an exposure of sufficient duration to show the extension of the long rays completely obscures the inner structure. A perfect photograph should be a composite, or should have the length of exposure automatically graduated to correspond to the distance from the sun. The latter plan is that of Mr. Charles Burckhalter of the Chabot Observatory, California. At the eclipse of 1900, by means of a system of revolving diaphragms placed in front of the plate and centered at the point occupied by the moon's image, he obtained the most beautiful photographs of the corona as a whole that I have ever seen.

In the photograph of the corona of 1893 there may be seen near the edge of the moon certain bright masses that differ materially from the fleecy structure of the corona. These are what are called the prominences, scarlet masses of glowing hydrogen gas, which, with the silvery white of the corona, make the phenomenon of a total eclipse so beautiful. Until 1868 the prominences, as well as the corona, could only be observed at total eclipses. By means of the spectroscope, however, it is possible to separate the light emitted by these "red flames" from the light of the sky, and in this way they may be seen or photographed on any clear day without an eclipse. Many have been the attempts to do the same with the corona. While the outer parts apparently shine by reflected light, those nearer the sun shine more or less by their own light,



CORONA OF 1889

HARVARD ECLIPSE PARTY, WILLOWS, CALIFORNIA

and exhibit a bright green line in the spectrum. The best hope appears to be the effectual separation of this line from other light. Experiments have been made with the spectroscope, with special light filters and screens to cut off the intense glare of the sun, and at stations located on high mountains where the atmosphere would be less troublesome, but to date there has been no assured success.

For the observation of such a phenomenon as the "flash" spectrum, lasting only a few seconds, photography is peculiarly fitted. The spectrum of the sun as usually seen consists of a band of colored light crossed by dark lines, but at the moment when the moon has just covered the photosphere, or the luminous part of the sun which we ordinarily see, a sudden transformation takes place, and the lines, hitherto dark, become bright on a darkened field. This was first seen by Professor Young in 1870, and is due to what is called the "reversing layer," a thin stratum of incandescent gases overlying the photosphere. The phenomenon will be studied not only by plates exposed in a fixed position for the period of its manifestation, but by moving plates which will record all changes as they transpire. In the accompanying illus-



CRESCENT SUNS ON PAVEMENT DURING ECLIPSE OF 1898 AT BOMBAY

tration of the "flash" spectrum it is seen that the lines are curved. This will be explained when we remember that, as no slit is used in the spectroscope, they will necessarily take the form of the crescent of light at the edge of the moon.

Another interesting application of photography to eclipse work is the observation of the progress of the phenomenon, including the record of the contacts. The Smithsonian party at the eclipse of 1900 used a lens reduced to a very small aperture for this purpose. The images were received on a plate that was moved every second, and thus they furnish a complete record of the advance of the moon over the sun's disk. The result is very striking — the line of crescent suns growing thinner and thinner until they disappear at the total phase, to reappear about two minutes later in inverse order. Such an instrument is within the reach of almost every one, with the exception perhaps of the automatic device for moving the plate. It is not really necessary to use a lens, as a mere pinhole will answer. In fact the trees on the streets furnish us with myriads of natural pinhole cameras, every interstice between the leaves forming crescent-shaped suns on the ground and pavements. A photograph of a surface covered with crescents makes a pleasing contrast with one having the round images that are seen on other occasions. Moreover we do not need to go far from home for this observation, as even here in New England the moon will cut into the sun's disk by about three quarters of the diameter.

A feature of the partial phases is the sharpness of the shadows. This is the necessary result of the decrease in the area of the illuminating surface. Shadows in views taken under such circumstances have something of the appearance of those made by an arc light. Straight lines cast shadows according to their inclination to the crescent, ranging from sharp to diffuse, an interesting form being at an oblique angle, when there is a dark nucleus found with a penumbra of unequal width on either side.

A photographic record of the eclipse, whether total or partial at the place of observation, can be made by exposing a sunshine recorder to the sun for a period covering the entire duration of the phenomenon from full brightness to full brightness. The recorder can be made very easily out of cardboard after the Pickering pattern. It is really a small pinhole camera and consists essentially of a half cylinder about two inches in radius and about five inches long. On the inside a sheet of blue-print paper should be placed against the curved surface; the pinhole is made in the flat surface opposite. The box is set so that the axis of the cylinder will point approximately to the pole star, and then rotated on this axis to such a position that the image



R. DUEHRKOOP

THE IRIS BORDER

of the sun will fall on the center of the blue-print paper at the middle of the eclipse. These experiments may be made several days previous, and the box fixed firmly in the correct position. A blue-print having been exposed throughout the eclipse, the trace of the sun's image on the print will indicate the variation in the light, and when fixed will be a permanent record. If it is desired to mark the time, it is only necessary to cover the pinhole for two minutes and make a corresponding record, which may be written later opposite the intermission produced in the trace of the sun.

To the amateur who goes abroad, I would say first of all, enjoy the eclipse. Nevertheless, as a souvenir of the occasion would be pleasant, I would take some pictures, no matter how small might be my camera. In some cases small cameras may do more than large ones, provided they have ample angular aperture. For example, Mrs. Maunder at the eclipse of 1898, with a lens of $1\frac{1}{2}$ inches aperture and 9 inches focal length, obtained a photograph of the corona which showed a streamer extending about $6\frac{1}{2}$ diameters of the moon from the moon's limb. At the same eclipse a camera of 0.8 inches aperture and 8.8 inches focal length, exposed for fifteen seconds in a fixed position showed a streamer of 5 diameters of the moon in length, in addition to showing the planet Venus on the same plate. In the present eclipse Mercury will appear as a crescent near the sun, and may be possibly photographed. If the camera has considerable focal length, the exposure must be shorter, unless one has an equatorial mounting and a driving clock, as the movement of the image on the plate due to the diurnal motion will destroy the definition. If one is an enthusiast, it might be possible to improvise a mounting. The head of a turning lathe has been pressed into service at out-of-the-way stations, and I have felt that much might be done with the steering gear of a bicycle. In general, however, I should set my camera up in a fixed position, and give exposures from 5 to 20 seconds. In all cases have



R. DUEHRKOOP

AT THE WINDOW

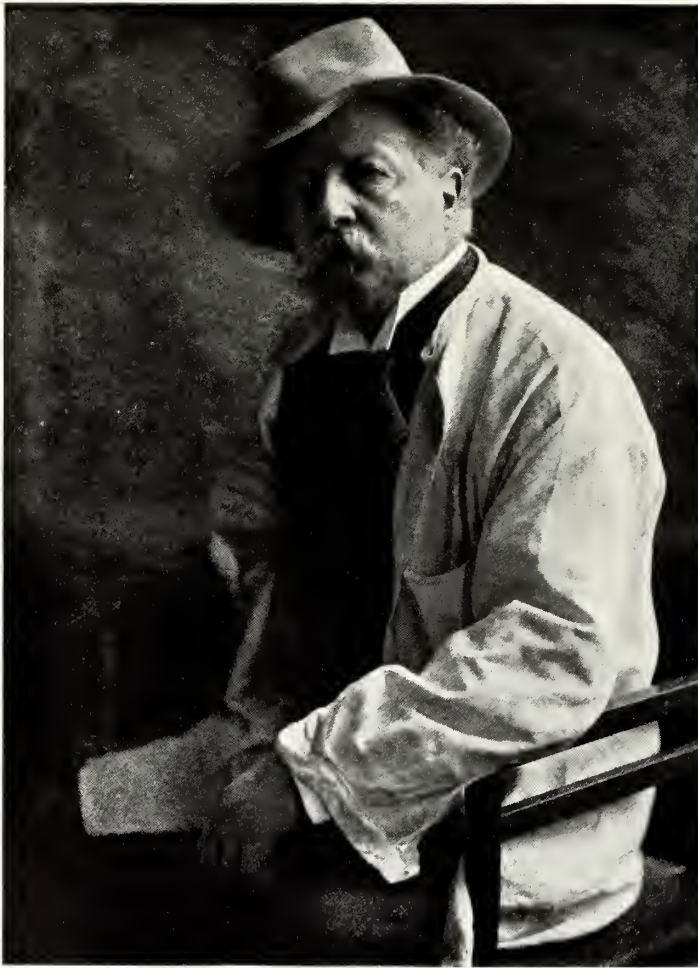
a definite plan made out in advance, and practise to see if you can make the necessary changes of holders, etc., in the required time. It is more expeditious not to draw the plate slides completely, but to leave them in position to thrust home quickly. Care should be taken not to get "rattled," and it is here that force of habit comes to one's assistance. At the eclipse of 1889 an accident at the beginning of totality disconcerted me, and after the eclipse was over, I could not remember whether I had drawn a single slide. Yet on development I found that all the plates had been properly taken. Now a word about plates, — any good brand will answer, but it would be well to have them "backed," and to develop them for contrast.

The risk of failure on account of clouds should be considered from the start. In fact, it is so great a risk that many do not care to spend their money for eclipse work. Harvard, for example, is not sending out an expedition, but is assisting others by the loan of apparatus. If, then, the day is cloudy, try to take it philosophically, remembering that the science of meteorology does not yet permit the "weather man" to make his predictions so far ahead or with the accuracy of the astronomer. Moreover, fate is kind; we shall have a total eclipse of the sun right here at home in New England, — in 1925.



R. DUEHRKOOP
IN THE GARDEN





R. DUEHRKOOP

AN ARTIST

THE PRINCIPLES OF PHOTOGRAPHY BRIEFLY STATED

PHIL M. RILEY

EIGHTH PAPER — TRIMMING AND MOUNTING

1. *Importance of Careful Trimming and Mounting.*— Far too many amateur photographers are inclined to be entirely satisfied when they become proficient in photographic processes so as to be able to produce good negatives and prints. These ordinary prints and negatives are mere records of fact, while an artistically mounted picture represents an effect. Beginners very often neglect to think of proper and artistic mounting. In this they resemble certain painters who have despised framing, claiming that it was unimportant, and not a part of their business to design supports and protecting frames for their canvases. The best artists, however, consider the frame an important part of the whole effect; they consider that the picture is not complete without it, and select it only after much careful thought and study. Now the mount in photography is the same as the frame in painting, and deserves just as much careful study and earnest thought. The masters in photography often spend days studying effect before mounting some fine production. Thousands of good photographs have failed to give the effect which their maker intended because of unsuitable mounting, and many others are uninteresting because the undesirable portions have not been trimmed away. Trimming and mounting, taken together, has become an art in itself.



R. DUEHRKOOP

PORTRAIT STUDY

More attention is being given to it every year by the best photographers, and it is no longer the mechanical process of a few years ago. To keep abreast of the times every worker should understand something of the principles involved, or he may offend some of his friends who have accurate and artistic eyes. The worker should always keep in mind the fact that it is an effect he is striving for and not merely the placement of a record of fact on a firm support for protection. This latter purpose of mounting has become a secondary application of the process. Try and infuse some art principles into your work. Consider the trimming and mounting of each print separately and treat it according to your best judgment. Remember that uniformity of size, shape, color, and material in mounting is the monotony of many photographic collections.

TRIMMING

2. *Necessity for Trimming.* — Many photographers think that because printing paper is made in certain standard sizes their pictures should follow the example, and the result is they trim off only the rough edges of the print which were covered by the rebates of the printing frame or plate-holder. This is a great mistake, for there are few photographs that may not be improved by judicious trimming, and it is not infrequently the case that a poor photograph may, by heroic

use of the knife, be made a good picture. The standard size of paper is rarely just the size that best suits the picture, and it is as unreasonable to make your pictures conform to these sizes as it would be to confine a poem to a certain number of words. Most snap-shots have a large amount of uninteresting foreground as well as much that is obtrusive and devoid of interest on each side of the principal object. This is the result of the hurried manner in which they are usually taken, often at a considerable distance from the object photographed so that it occupies a very small part of the negative. These useless and undesirable details always obscure and overweight the desirable part of the picture unless they are cut away. The attention is often arrested by the attractive views one sees through open windows and doors, the full interest of which was not seen when looked at in the open. It is the exclusion of the wide sweep of the landscape and apparent concentration of the view which makes the picture. Do not hesitate to sacrifice half, or even more, of a print which is uninteresting or unnecessary in order to accentuate that which is of value. A square inch of interest is better than a square yard of monotony. Trim your prints mercilessly but not recklessly. Study each print carefully and have a good reason for each cut you make. The very fact that the sizes differ so greatly in doing this will add a pleasing variety to your collection of mounted pictures.

3. *Determining where to Trim.* — Trimming is largely a matter of composition after the print is finished, and the principles of composition given in the lesson on that subject will greatly help the student. If the view was carefully and correctly composed when taken so as to fill the whole negative, it is only necessary to cut away the rough edges and square the corners to make sure that the print is rectangular in shape. In squaring prints, defects in taking the picture, such as not leveling the camera, can sometimes be remedied. It is almost impossible to do this in the case of a tall building which has been photographed by tilting the camera upward, thus causing the vertical lines to converge toward the top of the building. In landscape work, however, or if the camera was tilted sidewise in taking a building, the trouble can be remedied. If buildings are in the view, trim parallel to some vertical line on them and then square the print. In landscapes the horizon line will generally give a base to work from; this is especially true in lake and sea views. Should the horizon line be wanting, there is generally some vertical line, such as a prominent tree, to square from. In determining where you will trim a print, keep constantly in mind the fact that you are composing a picture, study your lesson on composition, and act accordingly. The best way to determine just the right part to retain, is to take two pieces of cardboard, shaped like a carpenter's square, and lay them on the print, moving them about thoughtfully until the exact portion of the print forming the most pleasing picture is determined upon. Marks can then be made with a pencil and the print trimmed to them. A horizontal print may need to be trimmed to a vertical shape; do not hesitate to do this. Experiment and study effects with your spoiled prints in order to get more experience. These you can cut freely without any qualms of uneasiness. Study the works of the masters in photography, but never do a certain thing because some one else has done so. Do not be dependent upon any one for ideas; learn the principles upon which others have worked, and whatever you do, have a reason for it. In trimming as well as in mounting there is great opportunity for originality, backed of course by sound judgment.

4. *Shape of Prints.* — The rectangle used either vertically or horizontally is the best shape for most prints. Very few pictures compose properly to make an exact square, and the oval and circular forms should also be avoided for the most part. They are sometimes useful in portraiture, and occasionally in other work; they may be used on prints with many prominent straight lines, sometimes cutting off some very bad corners. Other shapes than these mentioned should be used sparingly, and only in special cases, after much thought has been given to the artistic effect.

5. *Trimming Appliances.* — One of the first considerations is that the print be trimmed perfectly square. This you cannot expect to do by means of a pair of shears, using the eye alone as a guide, or by means of a ruler and pocket knife on any handy table with the almost absolute



R. DUEHRKOOP
THE BOOKSHELF



certainly of tearing and making the edges ragged. Prints can be nicely trimmed by means of a draughtsman's triangle, or with the glass-cutting shapes supplied by dealers in photographic goods who also furnish suitable trimming knives. Almost any knife with a slightly rounded point may be used if it is kept sharp. Bookbinder's or shoemaker's knives are probably the best. Then there are the wheel trimmers, of which there are two varieties, — the small swivel wheel intended for cutting ovals or circles with metal forms, and the larger and fixed wheel for straight cutting. These methods of trimming all necessitate a board of close-grained hardwood. Probably the best means of trimming, however, is the regulation trimming board of the stores. These can be bought at a moderate cost, and we advise every worker to own one. In selecting one, be sure that the working edges, the knife and the measuring scale, form a right angle. If this is not the case, prints cannot be accurately squared with it.

6. *Printing with Masks.* — Doubtless you will remember attractive pictures seen in different collections which had narrow, white margins about the edges of the prints. This is another method by which the selection of the desirable portion of the negative is made before printing and that portion only printed in a rectangle, square, or oval, as you may desire, by the use of opaque paper masks with accurately cut openings of various sizes and shapes, which block out the undesirable details. With a reasonable amount of care and patience the rectangular masks can be cut out of thick heavy paper by an amateur, but the oval and round shapes cannot be accurately made without metal forms. Perfectly cut masks in all sizes and shapes can be had of the dealers, however, at very small cost. These may avoid trying your patience and temper, but even then it will often be an advantage to cut one yourself occasionally for some particular print. Do not think that this white margin is always pleasing, but it may perhaps help to bring out the motive of the picture, especially if a dark mounting surface is used. If it is not desirable it can easily be trimmed off. Dark pictures, especially if on a light mount, will look better with little or no white margin, while light prints on dark mounts are often improved by the margin line. Prints made on platinum or development papers which are to remain unmounted are given a pleasing finish by this method of printing. When the prints are to be mounted, the width of the white line can be regulated in trimming. It will generally be very narrow, in some cases no wider than a pencil mark, and never more than a quarter of an inch. In trimming use care and have the line of uniform width on all four sides of the print, except in some rare instances, when the bottom margin may be a little the widest. Never work upon any fixed rule in this matter, but use good judgment and experiment, always having a good reason for everything you do with the subject you may have in hand. In this work you will need a printing frame a size larger than the negative, with a piece of ordinary glass on which to lay the negative in the frame while printing. The mask of proper size can be moved about over the negative until the desired portion is covered; then the sensitive paper may be placed above it and the printing frame closed.

MOUNTING

7. *Color of the Mount.* — As soon as your prints are trimmed to sizes and shapes which will best emphasize their good points, you are ready to consider the most artistic mounting for them. Every print has some dominating tint or color. The ordinary glossy papers give brown and purplish tones; platinum, bromide, Velox, Dekko, Cyko, and all of the gaslight papers give blacks, whites, and grays; there are also papers giving blue, green, and sepia tones. The proper mount for any print will either harmonize with this dominating tone, or contrast with it along the lines of complement. The former method is the one most used and is known as mounting in harmony, while the latter is spoken of as mounting in contrast.

8. *Mounting in Harmony.* — The reason why mounting in harmony is more common than mounting in contrast is because it is easier, and the results are usually much more satisfactory. Using this method, the mount which continues the predominating tint of the print is the right mount to use. Keeping this principle in mind, the way is clear and the student ought to avoid such grave errors as mounting prints with purplish tones on gray mounts, or black and white



R. DUEHRKOOP
THE CIGARETTE



prints on brown and green mounts. Prints made on bromide, platinum, or any of the development papers, may be safely mounted on black or gray cards of any depth. Platinum prints often look well on pure white, but generally they are richer on black, or very dark gray. Prints on any of the development papers which have brownish or greenish blacks will be much improved in mounting by the use of brownish or greenish mounts which should be carefully chosen with reference to the print. Some mounts emphasize the high lights; some bring out detail in the shadows, and others allow the detail to sink away and give the print a very flat appearance. A jet black mount will often make a very flat print appear more brilliant, while the beauty of a soft print, without pronounced high lights or deep shadows, may be greatly enhanced by a medium gray mount of about the same tone as the print itself. The defect of a chalky white sky can be partially rectified by mounting the print on white filter paper or ribbed charcoal paper, while the same print on gray would of a certainty be very distasteful. There are no color contrasts to black and white; each contrasts with the other, and between these are the many grays. The student will do well to mount his brown, sepia, red, green, blue, and other colored prints on mounts continuing their predominating tone, unless he has at least a primary knowledge of complementary colors.

9. *Mounting Surfaces.* — As to mounting surfaces, the prepared mounts of regulation size and shape, especially those embossed with various designs, should be avoided, for they draw the eye away from the picture. Always keep in mind the fact that it is the print that is to be displayed and not the mount. Only a few years ago all photographs were made on glossy papers giving brown or purplish tones, and were invariably mounted on white cards for support and protection. This secondary application of mounting has now given way to the better idea of choosing a mount which will bring out the special beauty of the print. The full realization of the fact that photography has become not merely a science but an art has happily changed all the old careless methods of mounting; the principles of art have been applied, and, as a result, there are now many beautiful mounting-boards and papers which stimulate the study of harmony and contrast. Some prints look well on a smooth paper; others appear to far better advantage on a paper of rough surface. The mounting surface should never be glossy, as the glossy surface reflects the light which should be absorbed, and takes the attention from the print. The cover papers, used for pamphlet covers, make fine mounting surfaces, and can be secured in practically unlimited range of color, tone, weight, and texture. Parchment, deckle-edged linen, rice and Japanese papers are frequently used for very delicate effects. Nearly any large printer is prepared to furnish these papers in sheets about 20 x 25 inches, which can easily be cut to any size needed. The student should supply himself with a quantity of paper of different shades, textures, and weights, which seem best suited to his kind of work. It is well to lay the print on a number of different mounts to try the effect of each. In this way the most effective shade can nearly always be selected at once.

10. *Double Mounting.* — Frequently two shades may be used on a mount in the form of a narrow border or line between the print and the mount proper, giving a gray, black, or white edge; if the print is in black and white, sometimes two or more lines are used, but this method requires a good eye for color effects and should not be used too often or without good reason if the results are to be pleasing. To mount prints in this way the paper which is to be used for the color line is trimmed to a size slightly larger than the print. The more lines used the narrower they should be; an eighth of an inch is about right for one line, but if two are used, a sixteenth of an inch is better. The papers used for the color lines are lightly pasted together at the top, care being taken to preserve an exact margin; the print is then mounted on the upper paper and the whole mounted on a larger and heavier mount, which may be a subdued color of neutral tone, or the same as used in one of the lines. A white margin can be secured on the print itself by printing with masks, as spoken of in another paragraph. Sketchy effects with large masses of light and shade and light prints on dark mounts are the classes of prints most benefited by this white line.



CHARLES WESLEY HEARN
THE DOMINICAN MONK





R. DUEHRKOOP

HERR ROELOFF

II. *Mounting in Contrast.* — Contrast mounting is largely a matter of dangerous experiment, and is perhaps better not attempted by the average worker. It is always well to avoid the brighter contrasting colors, although a bold, contrasty print should be given a strong background in the mount, while a more delicate print with fine detail should be more carefully handled. If the result is pleasing to the eye and displays the print, not the mount, it is a success. While colored mounts are usually not at all desirable for black and white prints, still in certain instances they may be used with rare effect. Recollection calls to mind the picture of an autumn landscape with willows drooping over a placid stream of water and a distant vista of hazy perspective suggesting uplands and meadows. This print was mounted on a heavy, dark, gray-green paper, with a narrow color line of a lighter gray-green between the print and the mount proper. The resulting effect was suggestive of heightened perspective and color, but the same print on an ordinary gray paper would have looked dull and flat. Some workers make blue-prints of their sea and sky negatives and find that they often furnish means of expression not obtainable by any other process. These are always safely mounted on dark blue papers,

but just enough dark red paper will sometimes produce a pleasing contrast with a snappy blue-print; too much will quite extinguish it. Contrast mounting is a subject which the worker will do well not to attempt unless he has considerable confidence in his eye for color.

12. *Size of Mounts.*—The size of the mounts or the mounting-paper is an important factor, and to quite an extent a matter of individual feeling. In general, a large print requires a smaller proportion of space for the mat, as compared to the print, than the small one. The margin of the mount should be from two to four inches larger than the print; even wider than four inches is sometimes found satisfactory. Mounting-paper generally comes in large sheets so that it may be cut into four pieces of about 10 x 12 inches each. This size will be very useful for 4 x 5 and 5 x 7 prints, although each print should be studied separately and the mounting carefully planned for its special needs. The tendency is usually to use too small mounts. This is especially true of exhibition work, as large mounts isolate the prints from each other, allowing each to make its own impression.

13. *Position on the Mount.*—Formerly it was the custom to mount exactly in the middle, but our eyes are so constructed that when the print is in the center of the mount, it appears as if below the middle. This is due to the fact that the "weight" of a properly composed picture is usually at the bottom. A print will nearly always look better if mounted somewhat above the middle of the mount; an inch above the middle is about right on a 10 x 12 mount. The distance above the middle should be greater if the mount is used vertically than if it is used horizontally.

14. *Mounting the Prints.*—Carbon, gum, platinum, and all prints on heavy paper may be hung on the mounts by applying a little paste along the top, or at the corners. Thin prints if at all inclined to curl, must be pasted down. Bromide prints, or those made on any of the development papers, will be improved for this method of mounting if they are immersed for a few minutes in a solution of one ounce of glycerine in fifteen ounces of water immediately after they have been washed. This will do much to prevent their tendency to curl badly in drying. If the print is to be pasted down, decide its exact position on the mount and mark it with three pin pricks, two at the top and one at the side. Where there are only a few prints to be mounted at a time it may be done after they are dry; but where there are many it will be more convenient to do so before they become thoroughly dried from the washing water. Dry prints should be dampened on their backs with a sponge or brush dipped in water. When the paper becomes limp take off the surplus water with a blotter and lay the prints in a pile face down on a clean piece of glass, preferably not exactly above each other, but one overlapping the other, a slight irregularity making it easier to insert the point of a knife or the finger nail under each as it is pasted, so as to lift it. A good mounting paste should be applied with a flat bristle brush, using as little as is strictly necessary, but working it well into the grain of the paper. Do not use a small brush or one end of the print may dry before the other is finished. Be sure that the edges are fully covered and the paste well worked in, but not enough left to exude under the pressure of the squeegee roller. Lift the print as already suggested and place it in position on the mount so as to just cover the pin pricks you have made. Gently rub the print from the center to the edges with dry fingers so as to hold it in place; then place over it a clean white blotter and apply the print roller, beginning at the middle and going to one end, then backward and forward several times, lightly at first, but gradually firmer, so as to make a complete and uniform contact. If there is any superfluous paste at the edges of the print, it can be removed with a sponge dampened in clean water, and when the mount is dry no mark will show. The mounted print will dry nearly flat if kept between blotters under a heavy weight for a few days.

15. *Mountants.*—Do not use any paste or mucilage which is handy, for some kinds contain substances which would in time destroy the print. Get some good commercial paste which is made especially for photographic purposes. Should your paste ever become too thick add a very little water and work it in with the brush.



R. DUEHRKOOP
GOTTESDIENST





H. W. TAYLOR

THE BERKSHIRE LIMITED

A PHOTOGRAPHIC TRIP IN THE BERKSHIRES

FRANK ROY FRAPRIE

It was on a May Saturday that four of us, well laden with cameras, plates, and films, took the Boston and Albany afternoon express from Boston. As it was the eve of Memorial Day, the train was well crowded with pleasure-seekers, but we found a vacant compartment, and settled down comfortably for the run to Pittsfield. The train rolled quietly along through the varied scenery of eastern Massachusetts, passing now a prim station garden, now a white painted village, and again a prosperous manufactory at the foot of its beautiful mill pond. As the afternoon lengthened out, and we crossed the alluvial plains of the Connecticut valley, dotted with graceful elms and other magnificent trees, the traveler who knew England recalled the beautiful valley of the Avon, and decided that the Westfield meadows would not suffer by the comparison. Soon the train reached the western wall of hills, and the river brawled and bounded along by the trackside for miles, disclosing many a beautiful vista, as the road wormed its way up through the valley. Reaching the summit of the pass, the speed of the train underwent a marked acceleration, and soon we tumbled out at Pittsfield, to find at the hotel a good supper and comfortable quarters for the night.

Five o'clock in the morning found us splashing and dressing, and not much later we sallied forth keen for breakfast. Not far up the street we found the restaurant that never closes, whose proprietor, as he assured us, had not seen the door-key for three years, and did not know where it was, and there we fortified the inner man. We had unintentionally excited the curiosity of



H. W. TAYLOR

ON LAKE PONTOOSUC

two beautiful (?) bulldogs on the sidewalk, and these individuals grasped the first opportunity to stroll in and critically examine the various legs of the party, apparently feeling that they too wanted breakfast, so that it was with some relief that we finally emerged with intact members. T., as usual, had taken samples of everything that the place afforded which was not too soft, and his various pockets bulged with the fat of the land. He explained that the delays caused by photography could usually be relied upon for a loss of one meal *per diem*, and that he proposed to be comfortable while the rest of us starved.

Taking a trolley car, we proceeded northward to Lake Pontoosuc, not far outside the town, where we alighted and set up our apparatus. We found innumerable opportunities for picture making on the varied shores, and had it not been for the unwelcome discovery that plates were running short, we might have spent the whole day about the lake. The shores in places were lined with rows and groups of graceful canoe birches, and farther on in a patch of dense woods,



H. W. TAYLOR

A CHARMING VISTA

we found some truly gigantic specimens of both this and the black birch. A majestic maple overhanging an opening through which appeared the blue sparkling waters of the lake, made one beautiful picture, and a group of willows nearby furnished another. Across the road the long, fertile slopes of the hills, clothed with apple orchards in full bloom, and dotted like an English park with scattered groups of trees, asked us to roam for hours through never ending scenes of beauty. When we finally started again for Cheshire, our original destination, our time was far gone.

Every turn of the road revealed new beauty, and again and again we stopped to photograph elm after elm, with vistas of lake and hill, with background of superb forest, with foreground of cattle or lush meadow or blooming thorn. In the end we reached our destination with plates exhausted, and the memory of dozens of pictures reluctantly left untaken.

In the afternoon we removed our headquarters to Stockbridge, a village paradise, and another spot to be eagerly sought by the photographer of nature. The great clumps of willows, the softly rolling turf, and the beautiful vistas on the golf links afford an infinite number of chances for picture making, and in all directions in and around the town fine views abound. The same may be said of the whole Housatonic valley as far south as Great Barrington, the limit of our travels on this trip.

Our next day was to be devoted to a tramp along the course of the lively Westfield River and for this purpose we took the train to Becket, where we commenced our pedestrianism. Our course first took us to Becket Glen, a wild ravine, down which tumbles a gay little brook in a succession of picturesque falls. We descended into the ravine by precipitous banks, and found a most attractive spot for a hot day. The usual difficulties of waterfall photography encountered us here, but we managed to get some pictures of sun-flecked, foam-ridden brook, following it down into the flatter country, and reluctantly leaving it, to find it again later when it joined the scurrying river.



H. W. TAYLOR

THE WESTFIELD RIVER

Following the natural propensity of mountain streams, the Westfield River has chosen the route of the railway as its natural path to the sea, and so we journeyed down the track, making excursions now and then up a steep hillside, or into a chance orchard for a picture. A train rounding a curve at full speed afforded us a chance to try the speed of our shutters, and a stone arch across the river was photographed more than once. But the crowning glory of the trip came when one member of the party suddenly led us straight down the embankment into dense woods, speedily found an overgrown path which he claimed was the Albany turnpike, abandoned before the Civil War, and walked along a few hundred yards. There where the old abutments of a ruined bridge still stood, we found the brook which we shall never forget, and whose secret belongs to a chosen few. The pure cold water runs over a floor of polished granite, unmarred by pebble or sand, and sweeps over a polished lip of the same stone, on either side of a couch evidently intended for the nymph of the pool, to drop into her bath hollowed from the solid rock, and surrounded by sheer walls. Here in a shadow which can temper the fiercest heat of August or break the bitter winds of December, we rested in the home of the water-sprite and yielded body and soul to the charm of the hidden grotto. Outside, and just below, the river sang over its rocky bed, but the brook rang like silver bells in its soft fall, and gave no hint of rude force in its quiet glide. Our last plate went to hold safe the beauty of the place, and we felt that our trip had reached a fitting climax in this retired spot. So it was late when we turned our faces toward the next station, and reached it in time for the evening train back to Boston.

Our three days' trip yielded us many a picture, some few of which appear here, memories which will never die, and renewed health and strength from the grand air of the Berkshire hills.



H. W. TAYLOR

CHESTER

SELECTING PHOTOGRAPHS OF THE OLD MASTERS

WILFRED A. FRENCH, A. M.

Hardly a national or state photographers' convention is allowed to pass by, without some one urging those present to "study the old masters." So at the forthcoming Convention of the National Photographers' Association at Boston, August 8 to 11, one may expect to hear this oft-repeated advice delivered by some enthusiast, who, no doubt, has experienced profitable results from hearty admiration and intelligent appreciation of masterpieces in painting and sculpture. Unfortunately this exhortation, however sincere and well-meant, is not accompanied by a suggestion as to how this study of the old masters shall be accomplished, short of a sojourn in foreign lands, where the best creations in art are to be seen. Our own art galleries are woefully deficient in original works by Rembrandt, Velasquez, Reynolds, Sargent and other notable portrait painters, and a journey to Europe is a luxury reserved to exceedingly few of the craft, while most of those able to gratify such a desire, lack the ability to put the experience, thus gained, to profitable use. The only alternative is recourse to photographs, and of these the best are not always available. Yet if the ambitious photographer is really in earnest, he can either purchase a series of photographs from negatives made on color-sensitive plates or induce the public library—and there should be one in every well-regulated community—to secure for its permanent use such a collection, which should be easily accessible to students. Orthochromatic photographs of the gems of the leading European picture galleries are made not only by Braun, Clement & Co., pioneer publishers of faithful photographs of the old masters, but by Hanfstaengl of Munich and the Berlin Photographic Company; also



C. S. HARRINGTON

A BERKSHIRE TROUT BROOK

by Brogi, Alinari and Anderson — the leading publishers of art photographs in Italy — and Hollyer of London, several of these having branch establishments in New York city. We would suggest that every photographer make a personal effort to procure a series of such photographs for himself, say of moderate dimensions, the cost of the 8 x 10 size, mounted, averaging only thirty cents each, duty paid. A good way would be for several persons to club together on a matter of this kind, as one large lot would cost proportionately less, in consequence of a liberal discount on large orders.

The great trouble with many cheap photographs of celebrated paintings is their inferiority of workmanship, which destroys the detail and tonal gradations and consequently the fidelity to the original picture, the resulting prints being excessively harsh in light and shade and of little or no artistic value. This is particularly true of reproductions of imported photographs, the process of copying showing no evidences of technical skill. We have in mind also a popular series of half-tones, the cheapness of which is their sole merit, for they rejoice in the defects just described to an excessive degree. While they may serve the purpose of familiarizing the masses with places of historical interest, famous personages and standard works of art, they are really of no use to the photographer craving reliable knowledge regarding masterpieces in painting. Yet such prints, which totally misrepresent the appearance of the original pictures, have been studied and emulated with sedulous care by photographers, who proudly display what they sincerely regard as "Rembrandt" or "Velasquez" lighting, when in reality they are, metaphorically speaking, working in the dark — far from the truth. This accounts, in a measure, for the total absence of outline of the figure, from the head down, characteristic of so many otherwise



CONRAD FREDERIC HAESELER

A GIRL'S HEAD

excellent photographic portraits, the originators of which assert, with more warmth than truth, that they are only following the example of Rembrandt, the great Dutch painter. For the benefit of these workers, who are obviously unacquainted with the original paintings which inspire them to high flights of fancy, we are constrained to state that the creations of Rembrandt are not mere dashes in black and white, as inferior photographic reproductions would have us believe, but are sincere expressions of artistic genius, marked by logically correct, though original, chiaroscuro, with adequate tonal gradations in the flesh-tints, and the figure is not only outlined with clearness, but the drapery, generally black or of a dark color, is painted with suitable detail. This is true of such favorites as "Johann Sobieski," "Saskia van Uylenburgh," "The Lesson in Anatomy," the so-called "Night-watch" and the numerous portraits of the artist, so well known through photographs to the majority of workers in this country. The above applies with equal force to works of other artists noted for strong chiaroscuro, including Hals, Rubens, Van Dyck, Velasquez and Murillo. By comparing an inferior photographic reproduction of a certain painting with a carbon print by Hanfstaengl or an equally reliable art-publisher, one will at once perceive the difference in the direction we have indicated and appreciate the characteristic harmony, clearness and beauty of the result attained by the use of color-sensitive plates.

EDITORIAL DEPARTMENT

CONVENTION LESSONS

When Napoleon decreed that every child in the schools of France should be taught to draw, he gave such an impetus to the artistic life of France that, in this respect, no nation has since approached her. To-day the Paris Salon is the highest authority on art matters in existence, while the artists of the world pay tribute to the genius of the great French nation by going there for their inspiration and enrolling themselves for study under its great masters of art. When, twenty years ago, the Prang system of art study was introduced into the schools of Boston, the first serious step was made towards popularizing the study of art in America. Later it spread over the whole country, and the progress since then has been continuous and rapid. The children of those days are the men and women of to-day. Many of them understand and appreciate the beauty of line, value of composition, pose, light, and shade in pictures. Their standards are higher than ever before. This explains why the average professional photographer finds it more difficult to win success in his profession to-day than it used to be, because the public, which, after all, fixes the standards for the professionals, is more fastidious and more exacting. The moral should be plain to every photographer honestly ambitious of success. He should likewise equip himself by art study. He should lead, not follow; and this lesson, above all others, should be emphasized at the convention.

ART STUDY

No man, except by accident, can express his idea of beauty in a picture and make others see it, without having first mastered the principles that underlie art itself, because in all the arts there are certain rules or conventions that are generally accepted as necessary for success. In music, for instance, we have scales, chords and harmonies, which, if lacking in any composition, turn it into discordant noise. The artist who neglects to follow these rules in his painting will fail, as the trained eye of the critic will see only discord in the finished result when he misses these essentials.

Photography is much like painting in this respect. Unless a photograph is something more than a mere record of fact, it does not portray beauty nor does it give pleasure. It must be pictorial, follow the accepted rules of composition, light and shade, and express beauty in an unmistakable way, to be artistic, and be recognized as such. It must show temperament and a personal intent on the part of the photographer to express beauty, to be called art. And all this knowledge of the principles of art and how to apply them may be learned from a study of the works of the old masters.

THE VALUE OF PHOTOGRAPHS AS GUIDES TO ART STUDY

The mere circumstance that photography, among its contributions to human happiness, has supplied a cheap, convenient and attractive form of reproduction of famous works of art from all parts of the civilized world, seems to have been sufficient to discourage adverse criticism of the products of this important industry. The time has come, however, when the attention of our art-loving public should be called to the meretricious variety of cheap photographs of well-known art works, with which this country has been flooded. Not only do these insidious pictures, however attractively presented, give a wrong impression of the actual appearance of the painting, pastel, etching or sculpture, which they intend to represent — thus impeding the dissemination of truthful art knowledge among students and amateurs — but they seriously obstruct the sale of similar, but original and eminently superior photographs. We have

treated this subject more fully elsewhere in these pages, and sincerely hope that our readers, and art lovers in general, will exercise intelligent discrimination in the selection of photographs and kindred reproductions of masterpieces in art, especially when they are to serve as guides to the study and appreciation of works of the great painters.

THE DUEHRKOOP PHOTOGRAPHS

In presenting this month to our readers, and more especially to the professional photographers of America assembled in convention in Boston, a representative collection of the photographic work of Rudolf Duehrkoop, of Hamburg, we are actuated again by the motive that has led us to present foreign pictures in the past. While we know that American photographers equal the best of other countries, and that their work is of the highest class, we feel that the mission of the PHOTO ERA is educational, and we know that the best form of education is the presentation of a subject from all desirable view-points. Men and women are very much alike in all civilized countries, each of which has its own characteristics and habits, and it is inevitable that a collection of ten German professional photographs should show some points of novelty and value to American professional workers.

We have not the space, nor is it necessary to the accomplishment of our purpose, to make detailed criticism of these pictures. A few general remarks must suffice. One of the most striking points is the extraordinary versatility displayed by the artist. We have reproduced ten pictures, and no two are in the remotest degree alike in composition or pose, and the same versatility is shown in the remainder of the extensive collection from which these were taken. Another is that very few are taken in the conventional studio surroundings. Some of them are outdoor studies, handled with marked success; several are taken in the ordinary surroundings of a German home. This is very common in German photographs, sometimes because the sitting has been made at the home of the sitter, sometimes because the German photographer's home and studio are often under the same roof, and he, therefore, has all his home resources of rooms and furniture to draw upon. Another point is that the subjects seem to have been very willing to subordinate self to the picture, and to pose in a position more adapted to furnish a strong composition than to bring out traits of personal beauty or identity. This regard for composition is strong in all the pictures, and is a point in which American professional work is apt to be weak. It is a point that will be strongly touched upon at the convention, and we shall be pleased if our small contribution may help a little in the growth of a feeling for composition among the members of the National Association.

THE BUST OF JOHN PAUL JONES

It is with feelings of pardonable pride that we announce the fact that the photograph of Houdon's bust of Commodore John Paul Jones — *as it exists to-day* in the Philadelphia Academy of Fine Arts — published in the preceding issue of this magazine, is the only one given to the public thus far. Nearly every magazine and newspaper in the land has devoted more or less space to the subject of the great naval hero and to the return to this country of his remains, but none has seemingly taken the pains to either illustrate or even allude to the portrait-bust of America's most famous admiral. The only exception that has come to our notice is *Scribner's Magazine* for July, which contains a cut taken from an old photograph of the bust at Philadelphia, the same appearing quite white, like the conventional plaster cast. We are reliably informed that this bust, when it reached the Academy of Fine Arts, at Philadelphia, had evidently been painted white, and it was not until recently that one of the employees, while cleaning the bust, discovered that the original color was dark green, to represent bronze. After much painstaking care this covering of paint was removed and the photograph, as we have reproduced it, shows the bust as Houdon intended it to be.

PHOTOGRAPHY AND PAINTING

THE attitude of the PHOTO ERA in regarding the photographic art as a rival to painting, *i.e.*, as an equally successful medium for individual expression, continues to be treated with contumely by professional art critics. This will not deter us, however, from holding fast to our tenets; for the fact cannot be denied, that photography — as exemplified in portraiture and landscape — has been perfected and advanced by men and women who are true artists, so that we have real art in photography. Our contention is that it is, with painting, a fine art, capable of expressing character in the human face as artistically and as faithfully, along the lines of established art principles, as the brush and the chisel; and that the photographer's individuality, temperament, mode of treatment and artistic vision — as expressed in color, tones and subtlety of beautiful lines — are just as apparent, as if the result were the work of the painter. Statements like these, which we can verify, naturally exasperate the art critic, who calls our position "simply absurd." No other criticism is vouchsafed. When we assert that portraits, produced by such workers as Garo, Pierce, Eickemeyer, Strauss, Hollinger, MacDonald, Ben Yusuf and others, are artistically the equals of likenesses by our best American painters, it is claimed that the painter's art is not seriously affected by such a condition. It is and it is not. No one can wish with greater sincerity than we, that all really good art should be fittingly recognized. Were we, however, to so far forget ourselves as to claim that the finest oil portraits are not in many ways superior to portraits achieved by photography, we should, indeed, be making ourselves appear ridiculous. Besides, we are not instituting comparisons between photographers and recognized masters in art, but between the former and the modern, slipshod school of painting, which seems to flourish in this country at the present time.

It is this class of artists which suffers most from competition with photography. Even painters of repute experience the humiliating disappointment when some of their patrons give the preference to a photographer, the question of price not entering at all into the matter. These are cold, hard facts, and we challenge any one to dispute them. We have the proofs, and shall present them later. Of course there will always be certain people, notably ignorants and newly rich, who delight in pictures of any sort, so long as they are "real hand-painted." It follows, therefore, as a logical conclusion, that if paintings — be they portraits or landscapes — which do not strictly conform to art principles, are classed as "art," then the photographs which displace them, by reason of superior merit, deserve to be acknowledged as art, and good art, in addition. Photography, as a fine art, does not stop there. It may be taken for proof that masters in photography are producing pictures which, for merit, equal some of the fairest of canvases. We realize that the scope of photographic operations is somewhat limited and yet, in certain qualities, photography surpasses the art of etching and exceeds even painting itself. Eliminating the question of color, which may yet be satisfactorily solved, there remain, perhaps, grandeur of conception and breadth of treatment. But the photographer does not despair, for he is a serious student and a progressive worker, and the resources of his art, like those of painting, have not been exhausted.

We do not mean to say that photography is encroaching on the domain of good painting to the extent of being inimical to its interests; but we assert, without fear of contradiction, that estimable artists in this country and elsewhere are executing oil portraits that are poor in composition, poor in color and poor in expression, and, only too frequently, lacking in correct drawing and fidelity to the sitter. Such products of the brush are neither successful as likenesses nor do they serve the purpose as works of art, the artist's name being no guaranty of excellence.

Would it not be better for those unsuccessful artists to honestly admit the folly of continuing in a profession for which they are clearly not fitted and which, in many cases, brings them neither fame nor fortune, but to engage in a pursuit for which they doubtless possess greater ability, and which offers them superior opportunities to succeed and be happy?

THE ROUND ROBIN GUILD

Conducted by Elizabeth Flint Wade. Specially designed for the amateur photographer and the beginner. Membership may be obtained by sending name and address to the PHOTO ERA.



M. T. FLEISHER

THE WALLS

WHO would have imagined that the competition, the subject of which is "Our Village," would have taken us across the ocean to one of the most out-of-the-way, and one of the most interesting villages in perhaps the whole world? But so it is. We have been spirited to Rothenburg-ob-der-Tauber, a veritable relic of the Middle Ages, which preserves its medieval character in great part unaltered. While the rest of the world has been rushing on, little Rothenburg has stood still and let the centuries go by. Were you to set foot within its gates to-day you would find there much the same conditions of living that prevailed decades ago, and its placid inhabitants would salute you with the same greeting, — "Gruss Gott!" — God greet thee.

Rothenburg stands on a high plateau overlooking the valley of the Tauber, and the great walls of enormous strength and thickness which preserved it from its enemies still encircle it. As in the long ago the city is to-day entered by one of the six great gates in the walls which, as well as the six small gates designed for pedestrians, are guarded by watch towers, while other towers are built at intervals between. Formerly there was a water-filled moat outside of the wall, but it is now transformed into a sunken garden where grassy paths lead through tangles of shrubbery and flowers.

In the center of the village stands the Rathaus, in the tower of which a watchman, stationed day and night, gives warning of fires, and marks the passing of the hours, striking their number with a great bronze hammer on the ponderous bell. A curious and beautiful old custom is observed by the singers of the town. Three times a week a quartet climbs to the tower and standing on the tiny platform sings a chorale to the four winds of Heaven. When a death occurs in the village the singers take their station in the tower at sunset and sing a hymn.

There is no need for a Humane Society in Rothenburg for the villagers cherish both bird and beast, the birds being so tame that they often nest in the cottages, the doors of which are left open night and day for their convenience. For many, many years, — so many indeed that all record of the length of time has been lost, — a great basket has been kept on the watch tower in which each year a stork builds her nest and rears her young.

There are flowers everywhere. The highest window in the tower has its box of flowers, and the yard of the poorest peasant is bright with blossoms.

Each year a historic play is given in memory of the escape of the town from sacking during the Thirty Years' War. The play is performed in the Council Hall, and the performers wear genuine old-time costumes. A stranger would imagine the town in a state of siege on the day the play is performed, for throughout the day halberdiers are stationed on the walls and guard the gates and bridges, while soldiers patrol the streets. About eight hundred persons take part in the play, and Wallenstein's army marches up against the town, camps outside the wall, and after a spirited attack the town is taken and the play of the deliverance is enacted in the old Council Hall. The camp outside the wall is maintained until midnight, and is a truthful reproduction of a medieval military encampment.

It is to Mr. Maurice T. Fleisher, of Philadelphia, that we are indebted for this peep into this town of bygone days, and to him is awarded the first prize in the competition. The only regret one has in looking at the pictures is that there are not more of them.

The first picture shows a portion of the ancient wall, into which is built a little room, formerly a gun station, now used as a dwelling room, reminding one of the Prophet's Chamber, for surely it is only large enough to contain the bed, the table, the stool, and the candlestick, which were the furnishings of that little room set apart for the prophet Elisha.



M. T. FLEISHER

PATIENT BEASTS

Through one of the archways we have a glimpse of the village street, while in the foreground is a dog, dragging a small market cart.

Another picture shows a quaint shop, before which goods are being unloaded, while the curious sign informs one that the proprietor deals in "Decorations and furniture."

One longs for a ramble down the lane and a peep round the corner into the interesting street of which we get a glimpse; while the thirsty wayfarer, drinking from a long spout, excites our curiosity. In reality he is for the nonce diverting the course of a fountain in order to quench his thirst. The water falls usually into a stone basin, but when one wishes to drink, a long spout is turned about, the water runs into the spout, and thus forms a simple medium for quenching one's thirst.

The view through the gate is extremely interesting, showing, as it does, the series of gates, there being four to pass through before one actually finds himself in the village.

There is one thing about this village, — or rather about its inhabitants, — which impressed the editor of the Round Robin Guild and furnishes an excellent example for the members of the Historical Guild to follow, and that is, that from the highest burgomaster down to the humblest peasant each has a personal pride in his town and its traditions, and possesses a determination to retain the medieval customs, the old historical places, everything, in fact, pertaining to the history of this really wonderful little town. No medieval building is allowed to be torn down and another rebuilt unless the new building is an exact replica of the old, and all new buildings erected must conform architecturally to the old-time buildings; consequently there is no marring of the harmony in the effect. They have no historical society, for they do not need one. The

inhabitants constitute one in themselves, and every house has its story and in many instances bears a tablet setting forth its records.

Shall we not emulate the example of the loyal Rothenburgers and endeavor ourselves to preserve pictorially all that is left to us of our nation's early records?

The pictures which won second prize were views of the village of Concord, and show views of Wright's tavern, School of Philosophy, roadway to Old Manse and a view of same, a picture of Walden Pond, etc. The pictures were made by Miss Myrta Margaret Higgins of South Framingham, Mass.

Honorable mention is due R. W. Born, who sent some excellent views of a village in winter, the one of a winter night being especially good, and also to Miss M. E. Niles, whose pictures of a village in summer were very attractive.

ROUND ROBIN GUILD COMPETITIONS

First prize: A yearly subscription to *Art in Photography*, value \$10.00.

Second prize: \$5.00 in photographic books or magazines, published or advertised by us, to be chosen by the winner.

Third prize: The choice of a yearly subscription to the *PHOTO ERA* or the *Practical Photographer*.

Fourth prize: One number of *Art in Photography*, value \$2.00.

CLOUD STUDIES — AWARDS

First prize: R. I. Caughy.

Second prize: C. M. Whitney.

Third prize: Sarah Weaver.

Fourth prize: Theodore D. Hurd.

Honorable Mention: Rev. E. J. Aiken, Lewis P. Craig, W. J. Dyer, F. W. Harris, J. E. Mars.



M. T. FLEISHER

THROUGH THE GATE

SUBJECTS FOR COMPETITION

July. — "Water Craft." Closes August 31. Any marine pictures in which water craft are an important feature.

August. — "Trees in a Landscape." Closes September 30. Any picture in which more than one tree enters as an important feature of the composition.

September. — "Foreground Study." Closes October 31. Any picture in which the foreground or object in it forms the chief interest. The space above the horizon line may not be more than one quarter of the picture.

RULES

Any number of mounted prints may be submitted by any member of the Round Robin Guild. Membership in this is free, and may be obtained by application to this office.

Every print must bear on the back the title, author's name and address, and Guild number, with the words "Round Robin Guild Competition." Unsuccessful prints will be returned if postage is enclosed and request to that effect written on back of print.

PLATINUM PRINTS IN RED TONES

WARM reddish browns and rich reddish tones may be obtained on platinum prints by subjecting the prints to various toning processes according to the tone desired.

Uranium is the chemical most generally used for obtaining a reddish platinum print. Make up

uranium nitrate, sulphite of sodium, and ferricyanide of potassium in ten per cent solutions. Make up the toning solution by taking four drams of each solution, mixing and adding 10 drams of glacial acetic acid. Add enough water to bring the amount of the toning solution up to 24 oz. Place the developed prints in clear water till thoroughly wet, remove the superfluous moisture with clean blotting paper, and immerse the prints, one at a time, in the solution. One should not tone more than three or four prints at once, as the toning takes place quickly and prints are liable to be overtoned. More distinctly reddish tones are obtained if the print has been made on sepia platinum. The shade of red obtained depends on the length of time

the print is left in the bath. A long immersion produces a red resembling a red chalk drawing, and is very pleasing. After the print is toned, place for three minutes in an acetic acid solution made of 6 drams of acetic acid and 20 oz. of water. Wash well and dry.

Another formula which gives deeper red tones with a brownish or sepia tinge is made up as follows: Dissolve 80 grains ferricyanide of potassium in 10 oz. of water and add 1 oz. of acetic acid. Dissolve 80 grains of nitrate of uranium of potassium in 10 oz. of water and add 1 oz. of acetic acid. Mix the two solutions, and having moistened the prints as previously directed, immerse in the bath till the desired tone is reached. Place in the acetic acid bath after toning. This is a specially good toning bath for underexposed prints, as it acts as an intensifier as well as tones the prints.

To obtain a red tone by development add 1 ounce of bichloride of mercury and 10 grains of common salt to every 4 oz. of oxalate developer. Use hot, and immerse prints in muriatic acid bath of 1 oz. of acid to 120 oz. of water.

With portrait work of certain subjects the red tones are very desirable and artistic.

REMOVING STAINS FROM NEGATIVES

STAINS on negatives are of various kinds, the silver stain being perhaps the most common. This may be easily removed by placing the negative in a solution made of 1 part iodide of potassium and 20 parts of water and leaving the plate in the bath until the stains disappear. If the stain is

local, make up a solution of iodine, 10 grains; iodide of potassium, 40 grains; and water, 1 oz. Add a few drops of saturated solution of hypo. Dip a piece of clean chamois in the liquid and rub the stain until removed, using more of the liquid and a fresh place on the chamois if the stain should be obstinate.

The yellow staining of the negative caused by the developer is easily removed

by using the following formula: make up a solution of water, 20 oz.; sulphate of iron, 3 oz.; sulphuric acid, 1 oz.; powdered alum, 1 oz. Let the bath stand twenty-four hours to ripen. Lay the plate face up in a developing tray and cover with the solution and let it remain until cleared, which will take from ten minutes to half an hour.

Another solution which effectually removes developer stains is made of $\frac{1}{2}$ oz. of alum dissolved in $7\frac{1}{2}$ oz. of water, and adding to it a dram of muriatic acid. A short immersion in this bath will clear the negative, and the bath may be used several times without destroying its clearing properties.

For a slight staining or clouding of the negative place in an alum bath made of 1 oz. of chrome alum and 20 oz. of water.

Be particular to wash plates well after clearing. To avoid after treatment of the negative see that all trays are clean, that the developer is properly prepared, and that hypo and developer trays are far enough removed from each other to insure the developer from contamination with the hypo solution.

ANSWERS TO CORRESPONDENTS

SARA E. — A formula for metol-soda developer is made as follows: Sol. 1. Water, 6 oz.; sodium sulphite crystals, $\frac{3}{4}$ oz.; metol, 35 grains. Sol. 2. Water, 8 oz.; carbonate of soda crystals, $\frac{3}{4}$ oz. To use, mix equal parts of the two solutions. If soft negatives are desired, add half the quantity of water,—that is, if four ounces of the two solutions mixed are used, add two ounces of water, making six in all. In mixing solutions filter the water to remove impurities and insure the keeping of the liquid.

FRANK L. C. — For convenience I would advise naming the camera club you propose organizing by the name of your town. This saves much trouble in correspondence and gives the club a



M. T. FLEISHER

A PICTURESQUE PATH

certain standing, making it one of the institutions of the place.

G. H. E. — The reddish brown spots on your prints are due to careless handling. They may be removed by dipping a piece of surgeon's cotton in a solution of muriatic acid and rubbing the spots gently. Sometimes the spots are caused by air-bubbles forming on the surface of the print when it is first put into the toning solution.

DELIA S. A. — Farmer's Reducer is made of 4 oz. of water, 30 grains of hypo; and 3 grains of ferricyanide of potassium. It works very slowly; and if you wish it to work faster, increase the quantity of the potassium. After use the negative should be placed in hypo solution for five minutes to remove all trace of the ferricyanide potassium.

BERNARD K. — There are no fees for members of the Round Robin Guild. Send your name and address to the editor, stating your wish to join, and a membership card and circulars will be forwarded to you.

RALPH BURWELL. — The speed of the Lumiere Dry Plates compared with those given in Table II, pp. 189, May PHOTO ERA, is Class 1 for the Sigma and Class $1\frac{1}{4}$ for the Green Label and Ortho A and B; Class 2 for Pan-Chromatic C and Class 4 for Yellow Label.

ANNA SHAW. — The lantern slide vise for holding the slide and cover glass in close contact while binding costs 60 cents. There is no danger of cracking the slide as the clamps are protected with rubber disks.

PAUL L. — Old or used developer acts like bromide, checking the development or retarding it. It is a good plan to use it when plates are known to be greatly overexposed. Dry your negatives quickly, but not by artificial heat. Set in a draft, and do not pack the drying rack full of plates. The unevenness of which you complain is evidently due to the film drying too slowly.

R. GARDNER. — The print which you enclose has so little detail in the shadows that an enlargement from the negative would not be at all satisfactory. To make a good enlargement the negative should have plenty of detail and be free from spots and markings such as show in the print sent.

D. H. T. — If you have a large quantity of prints to wash, a print washer is a very convenient article to own; but for the small number of prints which amateurs usually make at one time they will wash quite as well in an ordinary bowl with plenty of running water. Photography is such an expensive pastime that where one can dispense with certain articles it is desirable to do so. A

print washer costs from \$1.75 up to \$10.00, according to style, size, and quality.

R. J. C. — Send 25 cents for No. 11 of the *Practical Photographer*, which will tell you all about the making and finishing of lantern slides. You will find it a very convenient and valuable reference work on the subject.

BERTHA B. — The rapidity of a lens is a term used to denote the length of time which it requires to form and impress an image on the sensitive plate. Rapidity depends on the manner of construction and the glass employed in making the lens. The intensity or brilliancy of the image on the ground glass is governed by the amount of light gathered by the lens.

NOTES AND NEWS

THE Second American Photographic Salon will be held in 1905 and 1906 in New York, Philadelphia, Washington, Pittsburg, Chicago, San Francisco, Portland, Minneapolis, Toronto, and Boston. American work must be framed, and should be sent to local juries as below: —

For Pennsylvania — to R. J. Hillier, 1811 North Broad St., Philadelphia, Pa

For Washington, Delaware, Maryland, and all South Atlantic States — to Charles E. Fairman, Capital Camera Club, Washington, D. C.

For Vermont, New Hampshire, Rhode Island, and Massachusetts — to Wendell G. Corthell, Boston Camera Club, 50 Bromfield St., Boston, Mass.

For Ohio — to E. G. Fountain, Cleveland Camera Club, Cleveland, Ohio.

For Canada — to J. P. Hodgkins, Toronto Camera Club, Forum Building, Toronto, Canada.

For Maine — to S. S. Skolfield, Portland Camera Club.

For Illinois, Indiana, Michigan, Wisconsin, Iowa, Kentucky, and Southern States — to Robert E. Weeks, Chicago Camera Club, Chicago, Ill.

For Minnesota — to Louis Fleckenstein, Faribault, Minn.

For Kansas and Colorado — to Thomas A. Morgan, Denver Photographic Society.

For California — to Fayette J. Clute, care Camera Craft, San Francisco, Cal.

For Washington State and Oregon — to Will H. Walker, Tull & Gibbs, Portland, Ore.

For New York, New Jersey, and all districts not mentioned above — to Metropolitan Camera Club, 102 West 101st St., New York City.

The work of those who have exhibited at previous important Salons need not be submitted to the district juries, but should be sent to the nearest Federation Camera Club and included with their shipment.

Any exhibitor may send direct to the National Jury, care Metropolitan Camera Club, 102 West 101st St., New York City.

Work rejected by these juries may be sent to the National Jury at New York. A National Preliminary Jury, consisting of twenty-five well-known photographers, will select about one thousand frames from the work sent to New York, and the final jury will consist of eighteen painters of national reputation.

All persons intending to submit work are requested to communicate at once with the Secretary of the Federation, Wm. T. Knox, 279 Washington St., New York City, asking for a copy of the rules and conditions.

THE list of awards of the International Exposition of Artistic Photography, held at Genoa in May and June, 1905, has just come to hand. The following awards were made to Americans: Gold medal with diploma to the Salon Club of America. First-class gold medal to Curtis Bell. Second-class gold medal to J. C. Pike of Indianapolis. Silver medal to Rudolf Eickemeyer, Jr. Bronze medal to J. H. Field, of Berlin, Wis. Special prizes: Second-class gold medal to J. P. Hodgkins of New York for child photographs, and to Louis Fleckenstein of Faribault, Minn., for photographs of sports.

THE first annual photographic exhibition of the Academy of Science and Art of Pittsburg will be held from Sept. 15 to 23, 1905. Entries are limited to those living within one hundred miles of Pittsburg. Full information may be had by addressing the Secretary of the Photographic Section, J. Montgomery Conner, Shetland and Finley Aves., Pittsburg, Pa.

THE Sixth International Congress of Practical Chemistry will be held in Rome in the spring of 1906 (Easter week).

The President of the Societa Fotografica Italiana, Col. G. Pizzighelli, 50 Via Alfani, Florence, as President of the Section "Photochemistry and Scientific Photography," invites all who are in-

terested in photochemistry and scientific photography to take part in this congress.

He kindly requests to be informed as soon as possible as to the subjects of the communications that are desired to be discussed.

The program of the meetings and excursions will be published in due time.

THE fifth annual Kentucky and Tennessee convention was held at McMinnville, Tenn., in the rooms of the Southern School of Photography, June 20 to 23, 1905. The meeting was well attended and proved of great value to all participants. The meeting voted in favor of the no-prize system for future conventions, and selected Louisville as its meeting place for 1906.

CHARLES WESLEY HEARN is a typical New Englander, having been born in Portland, Me., where he served his apprenticeship in the studio of the late Joseph Harry Lamson of that city, who enjoyed an enviable reputation throughout the country as a wet-plate photographer. After being with Mr. Lamson three years, he worked one year with Mr. Frank Jewell, of Scranton, during which time he wrote "The Practical Printer," which was published in 1877 and met with instantaneous success. It was for many years the text-book on printing and had an enormous sale. It was also reproduced in serial form in the *British Journal of Photography* and translated into several foreign languages.

He worked for Gutekunst, of Philadelphia, in 1874. In 1875 he purchased a business for photographic printing, which proved highly successful and remunerative.

In 1878, he became head printer for Henry Rocher, of Chicago, at the same time profiting under the skylight and in the dark-room by instruction from that eminent artist, whose refining influence is visible in all of Mr. Hearn's work. From 1880 to 1890 Mr. Hearn was engaged in business in Portland, Me., after which he was chief operator for A. N. Hardy, Boston, for two years, at the expiration of which he established the present studio in Boylston St. of that city, where he has been active ever since.

While serving in the capacity of first vice-president and, subsequently, as president of the New England Photographers' Association, Mr. Hearn worked assiduously to promote the interests of that organization and increase its prestige at home and abroad.

The New England Convention of 1902, with Mr. Hearn as chief executive, was marked by an unusually fine display of international photographic art, due to his untiring and skilfully directed efforts, enabling the New England body to secure a superb foreign exhibit for 1903. His pictures have been exhibited in this country and in Europe, their excellence being attested by num-

erous medals and other honors. Mr. Hearn was the unanimous choice for first vice-president of the P. A. of A. at Indianapolis in 1903, and, although in line for nomination to the office of president for 1904-5, he declined to be a candidate, preferring to center his energies in securing for Boston the convention of 1905.

EVERY photographer who attends the convention has long heard of picturesque Gloucester and its maritime industries. He should not fail during his stay here on some week-day or Sunday to travel down to the north side of Central wharf to take the delightfully cool and invigorating trip up along the famous "North Shore Route" from Boston to the picturesque fishing city of Gloucester. Hundreds of passengers who have never until this season availed themselves of the opportunity to take this trip are going this summer.

Boats leave Central wharf week-days at 10 A.M. and Sundays at 10.15, carrying with them a good orchestra and every convenience for the comfort of passengers, returning to Boston in time to take the early evening trains for the suburbs. An hour's stay in the quaint old fishing city is allowed, long enough to catch many picturesque glimpses and camera snapshots of unusual interest. The fare is only 75 cents for the round trip.

NEVER before in the history of the photographic business has a studio camera bounded into general popularity, *in less than six months' time*, and become the acknowledged leader among photographers and dealers everywhere. But this is the record of the "Century."

It is a well-known fact that very few improvements have been made in professional cameras during the past ten years. Believing, however, that the best is none too good for the professional photographer, and that the fraternity will appreciate a line of studio cameras having the latest improvements and strictly up to date in every respect, the Century has been put on the market.

Though a little higher in price than the old style cameras, if quality, exclusive features, the best workmanship, general design, and fine finish are all considered—in connection with the price—the fact will be self-evident that the Century portrait cameras represent by far the *most for the money*, and will not only give the greatest satisfaction, but prove the cheapest in the end, as they are built to stand the daily wear and tear of the gallery.

The cameras have many distinctive features, and are sold at as low a price as is consistent with good workmanship. Descriptions free on request from the Century Camera Co., Rochester, N. Y.

J. H. DALLMEYER, Limited, of London, England, makers of the famous "Dallmeyer Lenses," formerly represented in this country by the An-

thony & Scovill Co., have entered the American market direct and have engaged the services of Mr. F. G. Burgess, late of the Rotograph Co., and formerly the traveling representative of C. P. Goerz.

Mr. Burgess is one of the best-posted lens men in the United States, and we are glad to know of his engagement by the Dallmeyer people.

It is the intention of Mr. Burgess, as we understand, to ultimately open offices in New York City, though for the present he will occupy his time in calling upon his many friends throughout the United States and Canada. In the meantime, however, he may be communicated with care of P. O. Box 1891, New York City.

CAMS AND THE PRINCIPLES OF THEIR CONSTRUCTION. George Jepson. Cambridge, 1905.

Mr. Jepson has produced a little treatise on the forms, planning, and draughting of cams which forms a very good introduction to this somewhat specialized, but very important branch of mechanism. The text is somewhat succinct, but very thorough and practical, and the various classes of problems are carefully worked out. The illustrations, in two colors, are remarkably good specimens of draughtmanship, and are entirely adequate supplements to the text, the whole forming a complete course of cam draughting.

THE YEAR BOOK OF PHOTOGRAPHY AND AMATEUR'S GUIDE FOR 1905. Edited by P. R. Salmon, F. R. P. S. New York, G. Gennert.

The Year Book this year is issued upon a somewhat modified plan. The reading matter contains a very complete monograph upon Platinum Printing, giving the history and complete directions for making and working every modification of platinum paper which has been invented. This is the most complete treatise on the subject in English. The other monographs are on Iron Printing Processes, Press Photography, and The Elements of Composition. The rest of the book contains tables and formulas, novelties of the year, and other valuable matter. Fifty cents at dealers or by mail.

A NEW TREATISE ON THE MODERN METHODS OF CARBON PRINTING. Second Edition. A. M. Marton. Bloomington, Ill., 1905.

This nicely bound volume of 260 pages, price, post-paid, \$2.65, is a very exhaustive treatise on this important subject, covering every phase of manipulation and treatment in every variety of carbon work. The author is a practical carbon printer, with a very long experience, and is perfectly qualified to treat the subject from every point of view. Every possible point of difficulty is properly explained, and the book is indispensable to every carbon printer.

We have received copies of their 1905 catalogues from Burke & James of Chicago and New York, and from A. J. Lloyd & Co., of Boston. Each of these is a veritable encyclopedia of things photographic, and either firm will be pleased to send a copy free on request.

A booklet describing the Solgram process of color printing and giving prices of the necessary materials may be had by addressing the Solgram Co., Downingtown, Pa. This process is a very simple method of producing prints in natural colors. A sample package of 4 x 5 paper with directions and chemicals will be sent to any address for 35 cents, and for 15 cents additional a handbook of the process will be included.

HOWE & HALL, makers of Colorprint, advertised elsewhere in these pages, announce a competition for the best print in natural colors made on their paper. Cash prizes will be given, and full particulars may be had on request.

W. W. ROBSON, formerly of the N. E. Photographers' Association, has removed from Nova Scotia to Winnipeg, Canada. Judging from the handsome little booklet entitled "Superb Photography," which he has recently favored us with, his stay in Winnipeg will be long and prosperous. His enterprise and good taste are sure to win success.

AMONG the interesting personalities at the forth coming Photographer's Convention, there will be no one more popular or more highly esteemed than the genial Treasurer of the Association, Mr. Frank R. Barrows of Boston, who is now closing his second term of office as Treasurer.

"Mr. Barrows' business career opened in Sturgis, Mich., thirty-three years ago; he later went to Fort Wayne, Indiana, spending twenty-one years there, where he left a very lucrative business to come East that his children might have the educational advantages of Boston. Since coming to Boston four years ago he has been located in Ashmont, where he has built up a fine business. About two years ago he assumed the management of the Brookline Art Union in Brookline, having gratifying success in this studio as well. Always an enthusiast in association matters, he became a charter member of the Indiana Association, and was elected an officer the first year, later filling nearly every office, ending with the presidency, when he was elected to office in the National the same year, becoming its second vice-president, and the following year its treasurer.

Mr. Barrows has cause to be proud of his record as treasurer. By his careful management of its finances, the society has gradually built up a safe reserve fund sufficient to carry it through any adverse circumstance that might arise."

PHOTO ERA

THE AMERICAN JOURNAL OF PHOTOGRAPHY

VOL. XV

SEPTEMBER, 1905

No. 3

PUBLISHED AND COPYRIGHTED BY PHOTO ERA PUBLISHING COMPANY, 170 SUMMER STREET, BOSTON, MASSACHUSETTS
Entered at Post Office, Boston, as second-class matter

Editor: THOMAS HARRISON CUMMINGS

Associate Editors: M. O. SAMPSON, FRANK ROY FRAPRIE, S. M., WILFRED A. FRENCH, A. M., HERBERT W. TAYLOR

Contributions relating to photography in any and all of its branches will receive our careful consideration. While not accepting responsibility for unsolicited contributions, we will endeavor to return them if not available, provided return postage is enclosed.

SUBSCRIPTION RATES

The annual subscription in the United States, Canada, and Mexico, | Subscription in other countries in the Postal Union \$3.50
is \$2.50. Single copies, 25 cents each | Always payable in advance

ADVERTISING RATES ON APPLICATION

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RUDOLF EICKEMEYER, JR.
IMMORTELLS



PHOTO ERA

The American Journal of Photography

VOL. XV

SEPTEMBER, 1905

NUMBER 3

RUDOLF EICKEMEYER, JR.

AN APPRECIATION

SIDNEY ALLEN

Amongst the distinguished pictorialists of to-day a dominating personality is that of Rudolf Eickemeyer, Jr. It may be argued that he is somewhat of an alien to the present school of tonalists. On the other hand, the fact remains indisputably that he occupies a unique place of his own. He is not only the most *versatile*, but also the most *popular* of our pictorialists to-day.

This in itself speaks volumes for his natural abilities. It will be found that his pictures insist upon their individuality in any exhibition, and that the eye hails with pleasure the relief to be found in these restrained creations of an artist, whose preoccupation is wholly with a "photographic" yet *poetical* rendering of facts. In them we see the reflection of a comprehensive knowledge that has been acquired by independent means and does not belong to any particular school or period. He is himself *voila tout*, and this suffices to all who recognize the broader views of photography.

It is a shortcoming of human nature that we continually desire to compare or classify. For what is an artist's strongest claim to merit? No doubt that his work can hold aloof from any cataloguing. This is one of Mr. Eickemeyer's distinctions. It would be hard to find any other pictorialist, here or abroad, whose work produces the same effect as Mr. Eickemeyer's.

He strikes in his work notes that have some of the same qualities of unexpected truth, as of nature caught in an aspect full of tender associations, flooded with light, and yet withal novel, because no man has presented nature just that way before. His distinction has no aid from eccentricity; it is not the result of any artful caprice, but is due entirely to an absorbing passion for all things beautiful and tender, for tonal planes and values that dwell together in harmony, for truths that are abiding and not transient, and in a superlative degree for effects that have appealed to him through his own senses, and not pictured through the eyes and hands of any school or group of workers whatever. He knows his history of art as well as anybody, — his "How to make a Picture" shows what strenuous study he has made in that direction, — but he displays his knowledge only in a certain aloofness from common and enhanced schemes of competition — a rare accomplishment in a time when so many of our pictorialists confine themselves to the strict and slavish copying of the works of art transmitted to us from past centuries. He fully realizes that the imitation of printing and black and white processes is nothing short of a confession of inferiority, of an admission of sterility, and therefore he endeavors to remain loyal to himself, to his own predilections and good taste. The result is that his work is *modern*, in the sense that all good work of every period must be modern.

Before anything else, a photographer should be modern, by temperament, by unconscious impulse, by reflection, by study, and by knowledge of all that concerns the manners, the dress, the particular mode of living and thinking in this present day. Mr. Eickemeyer has this independence of vision, not so much perhaps in respect of externals as in a certain characteristic way



RUDOLF EICKEMEYER, JR.

MISS HOFFMAN AS CALPURNIA

of seeing the things around him, and translating and expressing them by means of the simplest, most truthful, and at the same time most beautiful effects.

Everything he has produced, from his "Vesper Bell" in the Royal Photographic Society, London, and his "Fleur de Lis" in the London Salon, down to the series of landscapes illustrating Hamilton Wright Mabie's "Nature and Culture" essays, — as it were, a sort of pictorial commentary on the thoughts of a philosopher, — bears the imprint of complete simplicity and intense naturalness, rendered in esthetic form. Where many another pictorialist would become mannered and complicated, would lose himself in decorative incongruities or a mass of trivial effects, he never fails, for he has the great gift of being able to treat his subject equally well, whether it be in portraiture or genre, in landscape or a composition for some ulterior purpose.

As a portrait photographer Mr. Eickemeyer ranks very high. In what consists, we may be inclined to ask, the greatest merit of a portrait photographer to present acceptance? Looking at the work of those who are recognized as leading lights, we answer: In conveying the strongest meaning in the simplest terms.

Ever since Mr. Eickemeyer has been connected with professional photography, his work



RUDOLF EICKEMEYER, JR.

SPRING

has come as a reminder of the fuller aims of portraiture. It was at the same time a revelation of Mr. Eickemeyer's powers of composition and feeling for form and texture. Looking over the pages of the "Beauty Book" — a notable gathering of ladies of wealth and fashion — one cannot deny his strong, quiet grasp of personality.

Plainness of features does not repel his esthetic sympathies, and his keen sight never misses a point in his argument that every type of human character is worth study. Thus some of his most notable successes have been achieved with varied material, and in this power of interpretation he has no rival, for even our able portraitists only too often accentuate what is unlovely. Face to face with an Eickemeyer print, you remain fascinated by his personal way of looking at things. Without any trick or flourish he asserts his quiet superiority to conditions. The depth and thoroughness of his work is in strong contrast with prevailing methods. He abhors showiness and clap-trap effects that flavor of the footlights, and this extreme simplicity of his reminds us involuntarily of the serious and dignified traditions of the art of portraiture as it was once understood.

To the general public Mr. Eickemeyer is best known by reproduction of his works in magazines, in which field he was the first to illustrate a nature article in a leading periodical, practically opening the door to artistic photographic illustrations, an event of importance to every photographic worker and of which Mr. Eickemeyer is justly proud, and his four pictorial books, "In and Out the Nursery," "Down South," "The Old Farm," and "Winter." A well-known artist has said that illustrating is one of the fine arts and that no other branch gives finer oppor-

tunity for the display of true artistic power, fertile and unencumbered fancy. Here again Mr. Eickemeyer's powers of observation are strongly in evidence. The grouping of his figures is invariably good and his placing of skilful contrasts always results in a perfectly balanced picture. He knows even more, to imbue each subject with some popular sentiment, and at the same time to give to it his own individual interpretation. A combination of qualities that is rarely found even amongst the best of illustrators.

It is, however, in his landscape work that Mr. Eickemeyer's artistic divinations are at their happiest, because his taste is so exquisite, and the beauty of landscape after all chiefly a matter of selection. Mr. Eickemeyer is not occupied with the absolute facts of landscapes, but each of his pictures portrays some delightfully new scheme of line, of light and shade, or some atmospheric effect, it may be the mist of morn on the meadows, a burst of sunlight in the woods, or a snowstorm over the frozen path of a river.

There is a sedateness about his work that refuses to consort with those who elbow themselves into the chief places of our dictatorially conducted exhibitions. Mr. Eickemeyer sets himself problems in which sheer cleverness has but little to do. He feels too deeply the beauty of nature to care much about the brilliancy of his technique; he produces, nevertheless, the greatest effect with the least apparent labor, and what is this? He finds surprises for us, not so much, however, in unusual schemes of composition as in unusual and withal charming motives, and these delicate observations of nature remain with us, thrilling us with that exquisite pleasure which is the final gift of all beauty.

This is particularly noticeable in Mr. Eickemeyer's studies of wild flowers, of which he is extremely fond. Flowers do not, as a rule, fill us with a sentiment beyond the feeling that they are pretty, and so their depiction in such a manner that would call upon us for sympathy is rarely accomplished; but Mr. Eickemeyer, out of the abundance of his great love for them, does really translate frail, ephemeral creatures of nature into pictures of rare and suggestive beauty. They do not merely represent aspects of originality and interest combined with marvellous accuracy, but are at the same time a glorification of that which is generally neglected or overlooked by the superficial observer of nature.

His awards, of course, have been numerous. He was one of the first Americans selected for membership in the Linked Ring. He is a medallist of the Royal Photographic Society, and received the special gold medal of the Hamburg Senate, also the medal presented by his Excellency the Viceroy of India for the best picture in the Calcutta International Exhibition. The latest honor conferred upon him was the gold medal at the St. Louis Exposition. He has been honored many times by being appointed judge in important exhibitions and contests, and he has perhaps judged more photographs than any one else in this country. In addition to his membership in the Linked Ring, he is a member of the New York Camera Club, member of the Salon Club of America, honorary member of the Columbia University Photographical Society, and life member of the Daguerre Club. In Yonkers, on the Hudson, where he was born and has always resided, he has been a member of the Board of Education since the year 1895. He is also a Director in the First National Bank and a Trustee in the Yonkers Savings Bank.

Mr. Eickemeyer is a man of restless activity and endless resources. Nobody can say to what particular development his versatile abilities may yet tend in the run of years. He has given us much, and selfish as we are, we still expect more. Whatever it may be, it will be warmly welcomed by his thousands of friends and admirers throughout the country. He has worked his way into public favor, as no other pictorialist has done, and he can rest assured that he will always remain one of the most interesting figures in the history of pictorial photography.



RUDOLF EICKEMEYER, JR.
REVERIE



THE PRINCIPLES OF PHOTOGRAPHY BRIEFLY STATED

PHIL M. RILEY

NINTH PAPER — LANDSCAPE PHOTOGRAPHY

1. *Selection of View.* — Selecting the view itself is always the first step in picture making. In almost any scene there are certain things which appeal to the observer and hold his attention so closely that other features remain unnoticed. Instances where the various portions of a view attract equal attention are very rare. At this point the landscape worker should learn his first lesson; select what is needed and leave out the rest. The most common difficulties in this class of work are the result of not understanding the landscape itself. The worker has not made a proper distinction between the necessary and the unnecessary elements of the view, or else a good idea has been “nipped in the bud” by poor expression. Landscape photography, or better pictorial photography as it truly is, should be studied as a means of expressing ideas rather than for the purpose of recording mere facts. If a right selection has been made, the negative when finished will not contain a number of unnecessary details which obscure the motive of the picture. Unity gives simplicity, and in simplicity there is strength. Unity, fitness, consistency, and propriety are terms used by different writers to express very nearly the same idea. It is truly an art to put one thing into a photograph well, and more than one is best not attempted. Several objects may of course be included, but they should express only one idea. Every object should be closely associated with the others and should contribute its part to the well-being of the whole. It is with this thought in mind that the point of view should be chosen. If an object can be excluded without detracting from the value of the composition, it should by no means have a place in the picture. All-inclusive landscapes are the common fault. When the principal object has been determined upon, the minor objects should be subordinated to it by placing them in the background, by differences of focus or by varying the point of view or the time of day at which the exposure is made so that the lines of the composition and the light and shade will draw the attention to the principal object and away from the minor objects. Good taste should be exercised to prevent including objects which are inappropriate to the surroundings. Strive for unity, harmony, and simplicity.

2. *Composition.* — Composition is an all-important consideration in landscape photography and should receive the worker's most careful attention. It is hardly necessary to speak of it in detail here for the seventh paper of this series on “Artistic Picture Making” covers the subject quite fully. The worker will do well to study that paper again in conjunction with this one. It has come to my notice that several beginners have been aided in the study of composition by converting their ground glass focusing screens into what might perhaps be termed view meters. This may be done by drawing on it four lines with a pencil so as to divide it into nine equal parts as shown in Figure 1. Objects of importance should be placed along these lines as far as possible, so that they will attract attention by their position. The strongest points of the picture are about A A and next to them B B. On any of these points, usually one of the lower, the object of chief interest should fall. Objects at the centers of the various rectangles, such as D, are always in strong positions of secondary importance. Figure 2 shows the use of this improvised view meter. Without doubt the eye will be attracted first all toward the large tree in the foreground which has a strong position on the right-hand vertical line. Wandering beyond it one perceives the little village and spire in the distance. These objects also occupy a strong point at the intersection of two lines. Last of all the figure in the foreground attracts the attention and is seen to be in a good position of secondary importance near the center of one of the rectangles. It will be observed that these objects form the outline of a triangle, and also that the weight of the large tree on the right is counterbalanced by the distant village and the figure on the left. It should also be noticed that the horizon line is about two thirds from the top. The sketch is a good example of the diagonal form of composition as well as of the pyramidal, for the lines



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RUDOLF EICKEMEYER, JR.
A SUMMER SEA



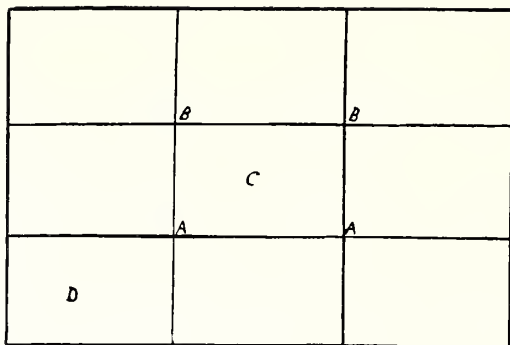


FIGURE 1

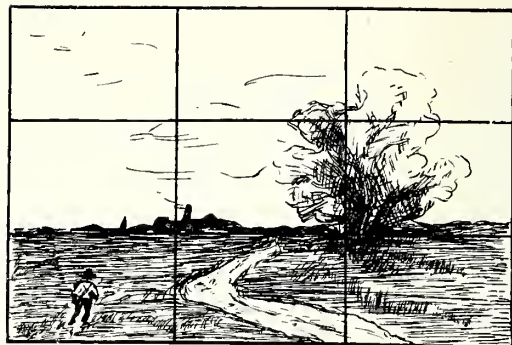


FIGURE 2

of the road run diagonally across the view. Variety is always an essential quality of a good picture, and it can usually be secured by combining the two forms of composition, whenever the material at hand permits, something after the idea expressed in the sketch. Of course one cannot rearrange nature, but the point of view can be varied to quite an extent.

3. *Foreground, Middleground and Background.* — Below the sky line of every complete landscape there are three distinct parts, spoken of as foreground, middleground and background. The success or failure of a picture is dependent to quite an extent upon the relation of one part to another and upon the treatment of each. There are times when the foreground should be made most prominent and times when the middleground or even the background should be similarly treated. It may be said in general that since a high sky-line gives the effect of nearness, the foreground would be in prominence, and a low sky line, giving the effect of distance, would place the background in prominence. In the majority of landscape views it is important to have the detail in the foreground quite sharp, no matter how soft and broad may be the things farther back. It is also essential that the objects in the foreground should appear in proper perspective without distortion caused by the lens. The nature of the foreground should receive careful attention for it regulates and emphasizes the perspective. Almost invariably there should be some object, such as an old stump, a tree, the corner of an old fence or some similar picturesque object in the foreground, at the right or left of the picture. Then there are times when the foreground is cut off and the middle distance treated as a foreground. Under such circumstances a certain sharpness of focus is essential, although it will be found that the eye does not require quite such minute detail as in the foreground proper. Into this part of the composition most ordinary sized objects, such as figures, trees, or buildings, are brought. Figures in the foreground of a landscape are nearly always a mistake, although there are some happy exceptions to this statement. Only in very long distance landscapes having a low sky-line, and particularly in views taken with regard to some striking atmospheric or cloud effect, does the background come into prominence. Under ordinary conditions it is treated simply as an accessory, and it should be remembered that detail does not belong there. The principal object and the minor objects of importance should be brought either into the middleground or the foreground, where they will be in good focus. On the other hand, the material of the background is usually best if only suggested rather than clearly defined, and the charm of a good picture is often due to the delicacy of the impressions which such a background conveys to us. Moreover, a background of this kind is one of the surest means of suggesting the motive of the picture by bringing the principal object into prominence by sharpness of focus, and at the same time subordinating the less important objects to it. In the hasty pursuit of art, however, do not assiduously throw everything out of focus with the exception perhaps of one prominent fence rail in the foreground. And do not for one moment think that I am an advocate of that school of photography which delights in general blurs of monotony in monotone, deludes it-



RUDOLF EICKEMEYER

A JAPANESE LANDSCAPE

self into the belief that an altogether out-of-focus view of nature is artistic, or prides itself that effects never seen high or low, on land or sea, but rather in the wanderings of a disordered brain, are akin to art. Focus somewhat sharply on the principal object, after having as a rule chosen a point of view where the minor objects of importance will fall into the middleground, and then use a large stop in the lens. This is all that is necessary as a usual thing.

4. *Lighting and Shadows.* — The importance of light and shade has already been spoken of in the seventh paper of this series, but I wish to impress upon the beginner the fact that one is just as important as the other. The average tyro seems to get the idea that there cannot be too much light in a picture, but a real picture without shadow is just as impossible as a painting done wholly in white on white canvas. Shadows very often form the chief interest in a picture and many a salon print could make no claim for attention but for the beautiful interplay of masses of light and shade which it portrays. Following along the lines of this popular fallacy just mentioned above, many beginners carefully plan to make their views with the sun directly behind them, and it could not be in a worse place. This matter of direction of the light should be given careful attention, and it may be said in general that the most pleasing landscapes are

made with the sun at the right or left. This fact may be made evident to the worker if the landscape to be photographed includes a tree in the foreground, by taking a point of view with the sun full on the tree. There is little beauty in it under such conditions, but taking a position at right angles to the first point of view so that the sun is directly at the right or left changes the whole aspect of things. One side of the tree is brightly lighted while the other is in shadow, and every little branch is outlined with a charm of distinctness and of light and shade. A slight change in one direction or the other will increase or decrease the light or shadow as we think best for the truest rendering of the scene. This illustration is especially applicable to trees bare of leaves in autumn.

Thus it may be seen that the point of view should be chosen with reference to the direction of the light and with reference to the beauty of the shadows cast by that light, both as regards the direction and quality of the shadows. If we neglect this in our pictures they will be only groupings of lines, and we shall lose all pleasing contrasts of light and shade. The earnest worker will not think it a waste of time to study the view in hand very carefully before making an exposure and determining these points to the best of his ability. The light should not be from directly behind and usually not from directly in front, although good pictures are sometimes made with the camera in such a position that the sun's image must be shaded from the lens during exposure, with a hat or the slide from a plate holder. As a rule, however, the camera should be pointed at about right angles to the direction of the sun's rays, or not far from it, but this should not become a stereotyped habit, and whatever the angle chosen it should result from careful study of the landscape with due regard to the best possible rendering of the subject.

I have said that the point of view should be chosen with reference to the direction of the light, but there are cases when the proper grouping of objects demands one point of view and that only. Under such circumstances the view should be studied to find out at what time of day it will be best lighted, and nearly always a satisfactory lighting may be secured if the exposure is made at the right hour.

This brings up the matter of the quality as well as the direction of the light. Doubtless every observing amateur has noticed the unpleasant contrasts, the short black shadows and general harshness of views made at noon when the sun was high overhead. In such pictures the skies are usually white and chalky and the shadows black with practically no detail whatever. Strong shadows always give color and life to a picture, while heavy black shadows are an abomination. Beauty in the shadows is dependent upon the detail which can be seen through them, and ample exposure is necessary to secure this transparency. Much better landscapes can be made in the early morning and late afternoon when the light is softer and the contrasts are less pronounced. It may be safely said of nearly all kinds of photographic work that the photographer who is seeking for pictorial effect should make his exposures only at these times. The long soft shadows cast by a low sun are very attractive from every possible point of view. High noon is the hour for the man who goes about snapping at everything in sight and getting a good picture only by accident. The more experienced and painstaking worker gets his views before and after office hours. A greater degree of pictorial effect may be secured before nine o'clock and after three than between those hours.

Light of course varies in quantity with the season, altitude, and locality, but a consideration of these conditions is somewhat beyond the scope of these papers and need not greatly concern the average amateur. The quantity of light has already been treated under the subject of "Exposure" in the third paper of this series and little more need be said except a caution to give full exposures for detail in the shadows, especially if the shadows are quite near the camera. If they are thirty feet or more away no additional exposure will be required.

Aside from the technical phase of photography, pictorial composition is the all-important consideration in all branches of the craft, although perhaps especially in landscape. One can never overdo the study of composition, and the writer recommends to every worker No. 12



RUDOLF EICKEMEYER, JR.
WINTER



of the *Practical Photographer* on "Pictorial Composition." It is an excellent treatise by some of the best living authorities on the subject.

5. *Clouds.* — It is usually desirable that a landscape print should have a cloud or other atmospheric effect rather than the blank, chalky white sky space so often seen, especially in the work of beginners. The sky, being the key-note to the picture, will if absent carry with it much of the sentiment, and the worker should therefore attempt to remedy this defect. In doing so, however, the fitness of things must be kept constantly in mind. Every view is not improved by clouds and if they are used at all they should be suited to the scene. No worker should acquire a determination which has been so much in vogue to have a cloud effect in every landscape at all cost; this sort of thing has been overdone. A landscape with clouds is a beautiful thing if well done, but if badly done it is in my opinion inferior to the blank paper sky. If there is a good cloud effect when about to take a picture, the best way is to get both the clouds and the landscape in one negative. The easiest method of doing this is by the use of orthochromatic plates, but if they are not at hand, double-coated or backed plates will be much better than the ordinary plates. Whatever the plate used may be, do not sacrifice the landscape for the sake of the clouds by underexposing. Give correct exposure and if the clouds are slightly dense they may be coaxed out in printing. On development papers this may be done by printing the length of time required for the landscape portion, and then printing enough longer for the sky, shading the landscape portion meanwhile with a card which should be moved slowly up and down for a distance of about half an inch across the horizon line. If the clouds are quite dense, local reduction will often be a great improvement. A ray filter of such depth as to increase the exposure about four times will do much to beautify the skies, whatever the plate used. Ray filters and orthochromatic plates should be thoroughly investigated and understood by every worker who aspires to do good landscape work.

Another method of securing what cloud effect there may happen to be at the time the view is made is to expose two plates, one for the landscape, and another, given a very short exposure, for the sky and then double print from both as described below.

Finally, there is the expedient of securing clouds from special cloud negatives by means of double printing, but this method should not be too commonly used, I think, and whenever it is employed the greatest care should be exercised to observe the fitness of things. The principal objection to the method is the danger of selecting an unsuitable cloud negative, such as a cloud negative lighted from one direction to be used with a landscape negative lighted from nearly the opposite direction, but with a little care this danger may be avoided. The worker who hopes to do much double printing should improve every opportunity to photograph different attractive clouds and skies. Quite a number of negatives will be needed to select from and so they should be made at different seasons of the year, different times of day, in different directions and conditions of the weather, in order that the sky may be exactly suited to the view. When finished these negatives should be kept in envelopes on which may be written a description of the conditions under which they are made. Thus a negative marked S x E, 2.30 on 7, 15, bright sun, indicates that the exposure was made at 2.30 on July 15, and that the sun was quite high, quite bright, and a little to the front at the right. This will avoid combining a winter landscape with a summer sky and such incongruous mistakes, and will make it possible to choose negatives for a combination which were made at almost the same hour and under the same conditions. The clouds to photograph are those near the horizon. Orthochromatic plates should be used to get the best results and a ray filter will be a great help. Sharp definition is not essential, and the exposure should be about one eighth of that required for an average landscape under the same conditions. It will often be found necessary to stop down the lens in order to secure the right exposure. Development should be somewhat short.

6. *Double Printing.* — For double printing, on development papers, either from two negatives of the same view or from one of a collection of cloud negatives to be combined with a landscape negative, two printing frames are essential. First determine the correct printing time,



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IN MY STUDIO

both for the landscape and the clouds and then make a print from the landscape negative and paste it to a sheet of opaque black paper. When dry cut along the horizon line, thus making two masks, one for the landscape and the other for the sky. The slightly torn edge which a dull pair of scissors will give is desirable. Now paste a strip of pasteboard along the straight edge of each mask. This will increase the distance between the mask itself and the printing paper and insure a better diffused effect. Spread glue on the pasteboard of the sky mask and place it on the glass side of the landscape negative, using the greatest care to make sure that the horizon lines exactly register, and in a similar manner paste the landscape mask on the cloud negative. Place the landscape negative in a printing frame and with bits of wood wedged between the glass and the sides of the frame, fasten the negative into such a position that the printing paper when fitted squarely into one corner of the frame will cover the desired portions of the landscape. Now make a print from this for a guide in adjusting the sky negative. Then fasten the sky negative into the second printing frame the same as the other negative was fastened and in such a position that the horizon line of the finished print, when fitted squarely into a corner of the frame corresponding to the corner used in the first frame, exactly registers with the horizon line of the sky negative. Always print from the cloud negative first with the mask-covered portion at the bottom and the light an inch or two above the normal position. This allows the clouds to slightly lap over the space they are to occupy, but the darker tones of the landscape will obliterate their soft outlines so that the joining line will be that of the horizon itself. When the clouds have been sufficiently printed remove the paper and place it in the frame containing the landscape negative, being as careful

this time as when first filling the frame to see that the corner of the paper fits squarely into the chosen corner of the frame so that the printing from both negatives will register as desired. Print this time with the mask at the top and the light an inch or two below the normal position. If all this is done correctly nothing in the finished print will indicate the use of two negatives.

7. *Plates.* — The variety and speed of plates should be chosen with reference to the character of the work to be done. For ordinary purposes the plates listed in the exposure tables in the third paper of this series under Classes $1\frac{1}{4}$ and $1\frac{1}{2}$ are about right. Plates slower than these have very little more latitude for the ordinary landscape, but open landscapes and all distant views, such as mountain scenery, can often be made more satisfactorily on slower plates. Clouds do much to add atmosphere to landscapes and it is always better to get them in the same negative with the view if possible. Anything which requires correct rendering of color values, such as the clouds, distant blue hills, or the like, will be much more pleasing if made on orthochromatic plates. Backed, non-halation or double-coated plates are always desirable for landscape views. This is especially evident when trying to make views in the woods, or in any place where the contrasts are great. For the benefit of the few amateurs who do not understand the theory of backing plates it may be said that the rays of light which pass through the film of an ordinary plate and come to the back of the glass are in a large measure reflected there and reenter the plate at a different angle, thus causing the blurring of the high lights which is called halation. This fault is seen at its maximum where a brilliantly lighted object is contrasted with a dark part of the picture, and in such cases often causes sufficient local fog to entirely obliterate the outline and detail of the high lights. There are various remedies for halation. One is the use of non-halation plates differing from ordinary plates in that they are coated twice with the sensitive emulsion, the lower coating being much less sensitive than the upper. In this case the doubly thick and in part much less sensitive coating absorbs the rays before they get completely through the plate, and the reflection from the back is consequently much diminished. As these plates are necessarily more expensive than the ordinary variety, they have not come into the general use which they deserve. Another method is to back ordinary plates with an opaque material which has nearly the same index of refraction as the glass. In this case the light passes out of the plate into the opaque backing and is there absorbed. If the backing had the same refractive index as the glass, the whole quantity of light would pass out, but no substance has exactly the same index although some very nearly approach it.

8. *Development.* — Although pyro is without doubt the best general developer for all branches of photography, it is often found in landscape work that it acts a little too vigorously on the high lights, especially in the sky portions of the plate, thus failing to bring out sufficient detail in the shadows before the high lights have become too dense and hard. Either the high lights will become too dense, as just indicated if the time of development is long, or else the shadows will be nearly transparent glass so that they are almost entirely black in the finished print if the time of development is short. Soft rich negatives are essential to pictorial effect, and a "hard working" developer like pyro, which develops the image gradually step by step, will often produce harsh contrasts and too much vigor and brilliancy. This is especially true in case of underexposure. In the hands of an expert any pyro developer may be modified to yield beautiful results in nearly every class of work, but it is often a delicate matter and one requiring much knowledge and experience to accurately judge upon, and since this series of papers was intended primarily for beginners, to whom many of the devious ways of photography are as yet unexplored paths, in justice to them I do not think it right to advocate a complicated problem of addition and subtraction by which one developer may be made to fit all cases. This method is all right for the advanced amateur, but it has discouraged many beginners who would otherwise have continued and succeeded in their work. Those who wish to try the pyro formula given in the paper on "Development" will probably find that with correct or slightly overexposed landscape plates more than eight ounces of water may be required, and the alkali (Solution



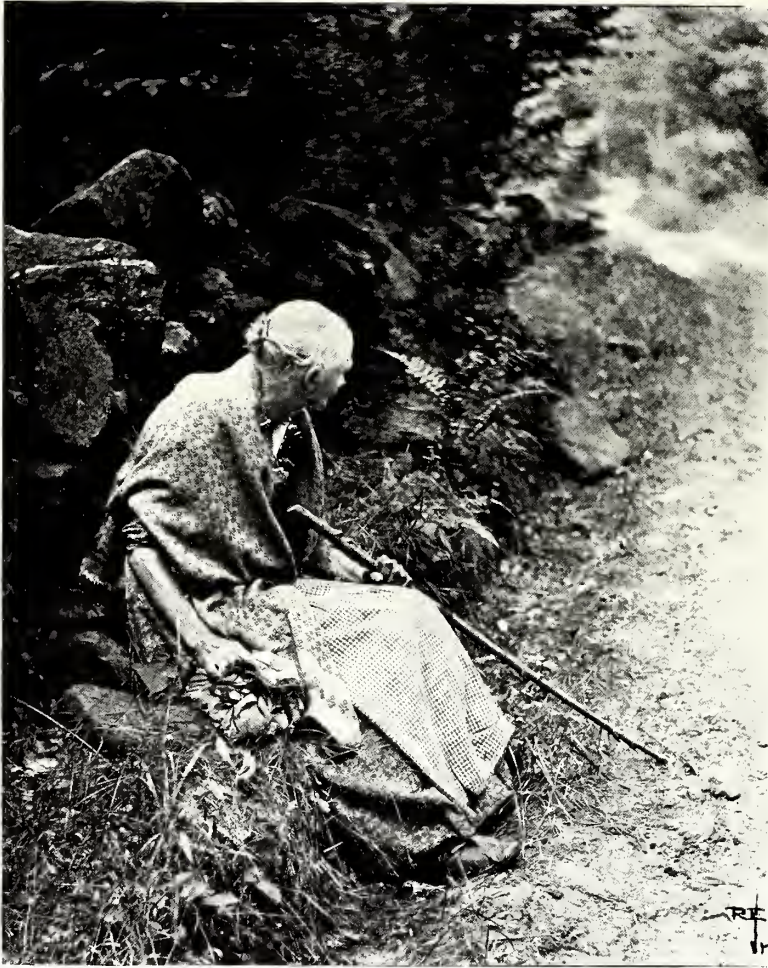
RUDOLF EICKEMEYER, JR.

THE SEA

No. 2) may be used a little in excess of the pyro to advantage in cases of underexposure in addition to the extra water added. For the average beginner a combination developer of eikonogen and hydroquinone does away with the complicated modifications sometimes necessary with pyro, furnishing a very useful developer for general work and especially so for landscapes or any kind of work which is benefited by fine detail and softness in the half-tones and requiring as much latitude as pyro gives. A very satisfactory formula is given below.

Stock Solution No. 1, Eikonogen, 180 grains; Hydrochinon, 45 grains; Sodium sulphite crystals, 3 ounces; Hot water, 24 ounces.

Stock solution No. 2; Potassium carbonate, 3 ounces; Water, 24 ounces. Allow No. 1 to cool before use. To develop, take two ounces of No. 1; one ounce of No. 2; and add one ounce of water. The addition of more water gives less contrast and density. About double the usual amount of water should be used with all developers for double-coated plates. Where overexposure is known beforehand, pyro is preferable, but old, used eiko-hydro, strengthened as development progresses with fresh solution and a few drops of bromide will give good results. Bromide has a marked effect with eikonogen and should be used with caution.



"OVER THE HILLS TO THE
POORHOUSE, I'M WENDING
MY WEARY WAY."

RUDOLF EICKEMEYER, JR.

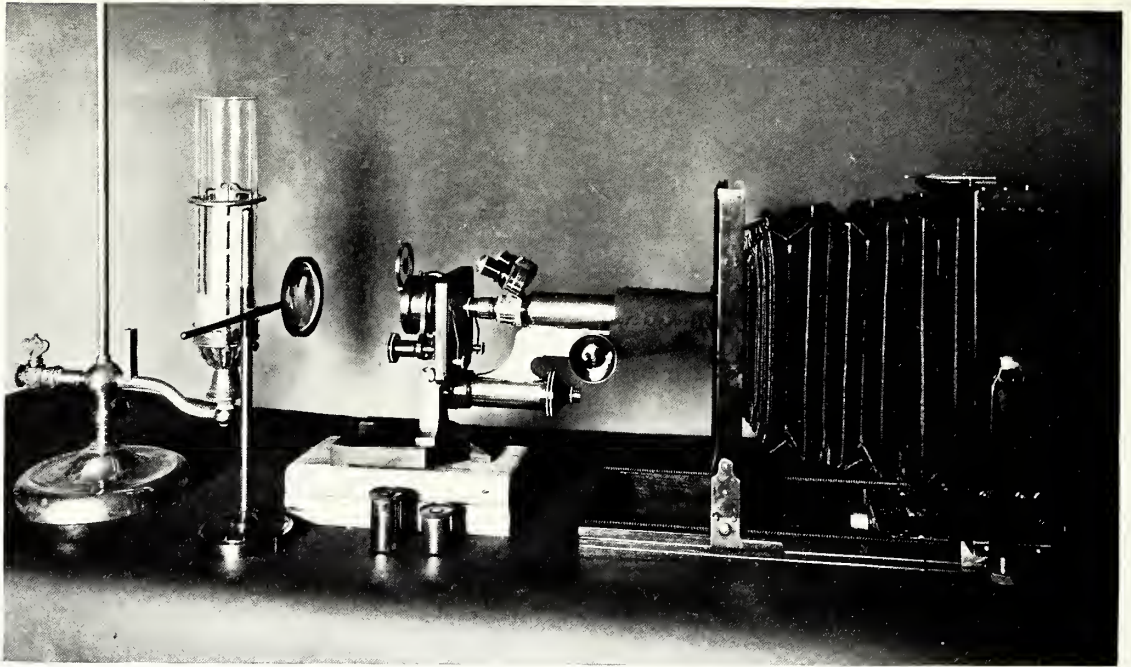
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9. *Printing.* — It cannot be said that there is any one printing method which is best suited to landscape, or even for a certain class of landscapes. Every process is at times applicable. It is too often the case that the amateur learns how to use one particular process to the exclusion of all others and is satisfied. This is far too partisan. Every earnest worker should make it his business to study the view he is at work on, get the best spirit and sentiment of it, and then use the printing method which in his opinion furnishes the best medium of interpreting all the beauty of his conception of the scene, for in no other process of picture making can so much individuality be expressed. One person uses bromide, another platinum, another kallitype, another gum; each likes his method best and is justified in so doing, for he has used the method not merely to record facts but to express ideas. It is very true that certain processes are more applicable to certain circumstances than others. In general it may be said that the glossy papers are to be avoided in landscape as the matt surface papers give broader effects with more softness, absorbing rather than reflecting most of the light. For the beginner the "gaslight" papers are without doubt the best, and the advanced worker will find them so, as far as convenience and rapidity goes, if not in many other respects. It should be the aim of the worker to secure a medium giving soft effects whatever the process may be. All things considered, platinum probably covers a wider range of negative, gives greater latitude in results, more richness, softness, life, and atmosphere than any other process for landscape



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PORTRAIT OF MISS A.





C. H. CLAUDY

COMPOUND MICROSCOPE AND CAMERA

work. It should be the ambition of every amateur to learn this process. A picture worth the making is worth experimenting on. Different papers should be tried as the worker becomes skilful in their use in order to determine which one most nearly expresses the facts and personal feeling inspired by the beauty of the view itself.

This article of necessity constitutes but a brief survey of landscape photography, and for the worker who is especially interested in the subject No. 7 of the *Practical Photographer* on "Landscape Photography," as advertised elsewhere in this magazine, furnishes a wholly practical working companion at a very low price. Its contents cover the subject fully, giving especial attention to composition, hints on selection and arrangement, cloud and sky, and figures in landscape.

WHAT THE MICROSCOPE SEES IN THE NEGATIVE

C. H. CLAUDY

The compound microscope is an instrument for magnifying very small objects to such proportions that their details are plainly discernible. Inasmuch as the smallest particle of matter, an atom, is inconceivably smaller than the smallest particle which can be seen with the greatest magnification obtainable, the limit of definition of detail is set always by the power at command, and never by the object. No matter how much we magnify and how much we see, there is always more, which we have not yet made visible and which must remain unknown until greater magnifying power is at hand.

On the other hand, the immediate structure of any object is often plainly revealed with a low magnification, and the immediate structure is all that interests us about a great many things. The human eye, for instance, can see no hairs on the wing of a fly, — a very moderate magnification will show these plainly. No magnification at command, however, will show hairs on the hair, supposing, for the sake of argument, that such things exist.



C. H. CLAUDY

PNEUMATIC SWEEPING MACHINE

If we turn the microscope on a photographic negative, different degrees of magnification will show us different things, but the highest will not show us all there is to be seen. I mention this in the beginning lest some misread the title into a promise to tell all that there is to tell about the minute structure of a plate.

Before calling your attention to the accompanying photomicrographs (photographs made through a microscope), it may be interesting to learn how these are made.

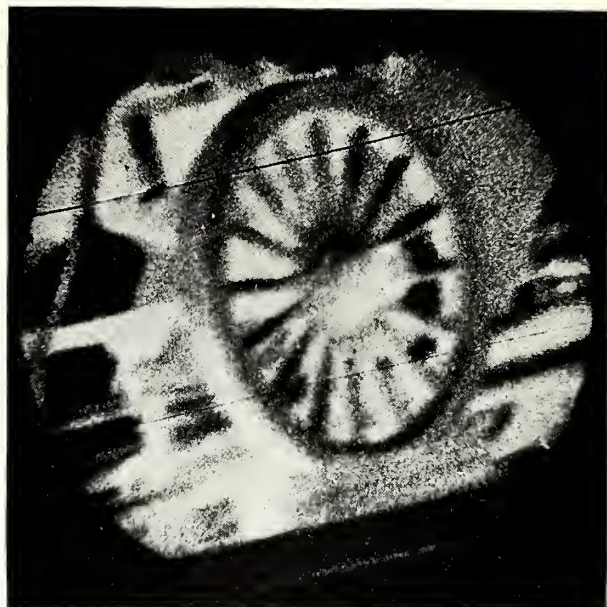
The microscope, as seen in the illustration, is composed of a tube with a lens at either end, a means for raising and lowering that tube through a space of several inches, a further means for moving it very slowly through a space of about an eighth of an inch, a stage on which the object to be magnified is placed, and a mirror and condensing lens beneath the stage to throw the light up through the object and the tube to the eye of the observer.

Any one with a clear comprehension of what happens when the camera is pointed at an illuminated object should have no difficulty in understanding the action of a microscope. The lens at the lower end of the tube (there are three in the picture, mounted on what is called a revolving nosepiece, so arranged that any of the three may be brought into position with the minimum of trouble) is called the *objective* and is similar in its action to a photographic lens of extremely short focus. Pointed at an object on the stage, properly illuminated, it projects a real image of the object to a focus near the top of the tube. A ground glass placed over the top of the tube will make this real image visible in the same way the ground glass does the image in the camera. It is too small for service, however, so an eyepiece is inserted, which serves to make the image visible to the eye and to magnify it at the same time.

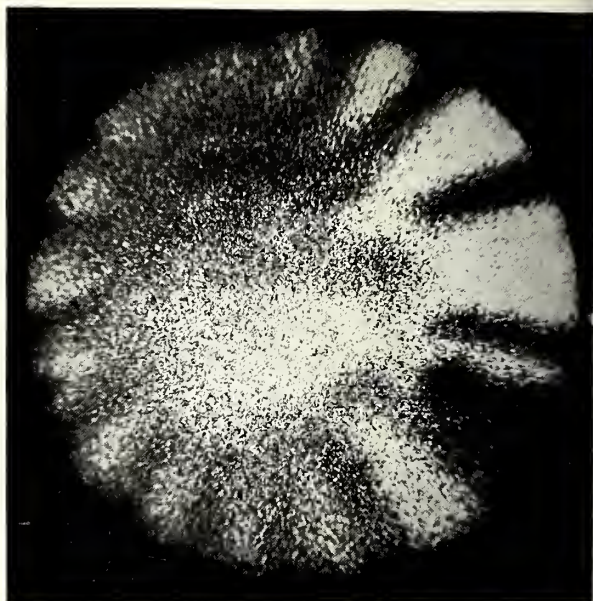
Now if the microscope is made horizontal and connected to the end of a camera so that the joint is light-tight, this enlarged image will be thrown on the ground glass of the camera and, if the plate is put in and an exposure made, a photomicrograph will result. The eyepiece can be used or not, as desired, the image being smaller without it than with it. To this broad outline should be added consideration of the different means for illuminating the object, the focusing of the image, etc., but as this is not an article on the ways and means to elementary photomicroscopy, such considerations will be omitted.

In searching through a somewhat large collection of negatives for one which would provide an object in itself not more than a quarter of an inch in size, I came across a photograph of a pneumatic sweeping machine, at work on the Capitol Building at Washington. This seemed to be sharp and the wheels of the wagon were small enough for my purpose. Accompanying this you will find a reproduction of that wagon, and the smaller of the two wheels resting on the ground is the one I photomicrographed three times, at three different magnifications.

A word as to the meaning of the expression "magnified ten diameters" and "magnified ten times." "Magnified ten diameters" means that an object one inch each way appears to be an object ten inches each way. "Magnified ten times" means that an object one inch each way appears about three and one tenth inches each way. Magnification in "times" means magnification of area; magnification in diameters means what it says. A magnification of ten "diameters" means a magnification of one hundred "times"; for an object one inch each way,



WHEEL ENLARGED 15 DIAMETERS



HUB ENLARGED 30 DIAMETERS

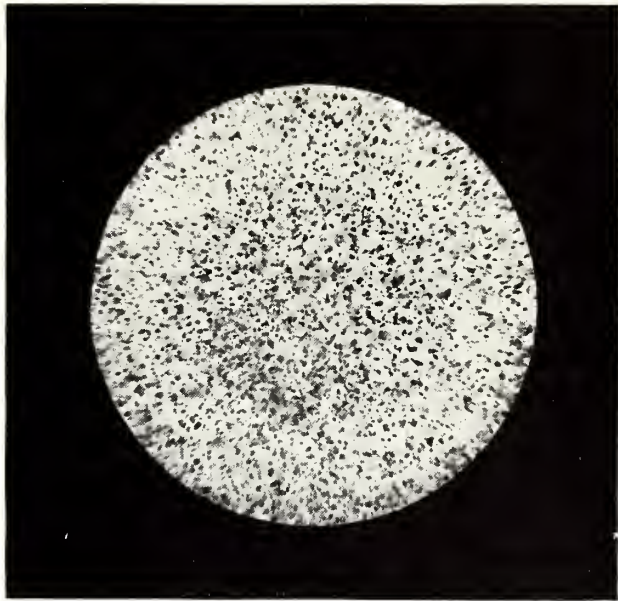
magnified until it appears ten inches each way would be big enough to contain one hundred objects of its true size. Consequently, when I speak of an image magnified forty diameters, remember this means sixteen hundred times, and when I show you a photomicrograph magnified two hundred and thirty diameters, remember it means that you are looking at something fifty-two thousand, nine hundred times bigger than it really is.

The first photomicrograph I made for these illustrations was of a magnification of fifteen diameters. The original plate was five by seven inches. An ordinary bromide enlargement to this scale would be eight feet nine inches by six feet three inches in size, a proportion, as you know, sufficient to destroy all detail in any image ever thrown on a screen for enlarging purposes. Yet here (such is the beautiful definition of the instrument and the care taken in the work) the grain, while showing plainly, does not alter the picture to any great extent. As this photomicrograph was taken of a negative, the resulting photomicrographic negative was really a positive, and the print, again, a negative. Still it is easy to trace out the shadows and the high lights by reference to the little cut, before referred to, of the wagon from which this was made. Fifteen diameters was about the least I could comfortably get from the instrument I used and I own I was surprised to find as much detail in so great (photographically) an enlargement. I could not quite understand the black lines running across the print and at first supposed them to be scratches in the *photomicrographic* negative. But, on examination of *this* negative under the microscope, I found that the film was not abraded and, on a more careful examination of the original negative, saw that the scratches were in *it*, but so fine as to be quite invisible to the naked eye.

If I was surprised at the definition in the first negative I made, at what was a small microscopical, but would be a great photographic magnification, I was not disappointed when I made the next exposure. This photomicrograph is of the hub of the wheel and magnified thirty diameters, or nine hundred times. To obtain this result with a bromide enlarging apparatus, the paper would have to be (for a 5 by 7 plate) seventeen and one half feet long and twelve and one half feet wide! Here the image breaks down very plainly and the silver grains of the negative are distinctly apparent. The light parts are, of course, the shadows; and the dark parts, the high lights. In the original object, the spokes, as they close up at the hub, form acute angles, each



SPOKES ENLARGED 105 DIAMETERS



"CLEAR GLASS" ENLARGED 230 DIAMETERS

with the other. The rounder ends of these dark streaks, — the high lights on the spokes, — show how sharp the original was focused, for, remember, this photomicrograph is nine hundred times the original object in the original negative in size! Divide the distance across one of these dark streaks by nine hundred and you will have, approximately, one thirty-sixth hundredth of an inch as a result, the distance across one of these points. And yet you will find those who complain of coarseness of grain in a plate!

Turn your attention now to the third photomicrograph, which is of one of these points by itself, magnified one hundred and five diameters. A bromide enlargement to the same scale would be approximately 61 x 44 feet in size. Think of that! This photomicrograph is eleven thousand twenty-five times as big as the point of the high light in the negative from which it was made. Here the silver grains are of such size that they can be measured on the print with a pair of fine bow compasses, scaling an average of a fiftieth of an inch in size. But I reserve more measurements until I finish telling you about the fourth and last photomicrograph which goes with this paper. This, I am sure, will surprise you as much as it did me. It is a photomicrograph of what appears to be clear glass at the edge of the plate where the plate was protected from the light by the edge of the plate-holder. The magnification is two hundred and thirty diameters, or fifty-two thousand nine hundred times. The amount of plate photomicrographed was exactly one one-hundredth of an inch across. Now, if you have nothing else to do, set a ruler across the center of this circle and count the black dots which touch its edge. Really, — I am not trying to suggest a joke. You will find that the average is about sixty. And these black dots, which are grains of reduced silver, caused either by chemical fog or fogging in handling the plate, do not by any means touch each other. If we arbitrarily decide that their average size is a fiftieth of an inch, then it would take about one hundred and twenty, touching, to stretch across this circle. As the circle is of a space one hundredth of an inch across, the actual size of these silver grains, according to this calculation, is one one hundred and twentieth of one hundredth, or one twelve-thousandth of an inch. Think of *that!* Your negatives are formed of tiny bits of silver, each one twelve-thousandth of an inch in diameter. Magnify one of these twelve thousand diameters one hundred and forty-four million times and it would be an inch each way. Is it possible, do you think, for any one to realize what an infinitesimal bit of space one twelve-thou-

sandth of an inch is? A horse car moving that distance every second would require thirteen and one half years to travel an ordinary city block! The distance between the leaves of a closed book is great compared to it. Yet it is, within an approximate error of twenty-five per cent, the size of the silver grains in the clear glass portion of an Orthonon plate developed in pyro, with the ordinary precautions to prevent fogging.

I am basing my estimates of magnifications here on the assumption that the editor will reproduce the photomicrographic prints the same size as the originals. If he increases their size, he increases the magnification without showing any more detail, and if he decreases the size, he decreases the magnification and detail and does not gain any brilliancy, microscopically speaking.

The calculation of the degree of magnification is made in this wise. Having arranged the combination of eyepiece and objective to be used in taking any given picture, for the object is substituted a micrometer scale, which possesses portions ruled for one, two, five hundred, and five thousand lines to the inch. By looking at this an accurate measurement of the extent of the field of view is obtained. Consequently, if I know that the original field of view was one hundredth of an inch in diameter and the resulting photomicrograph is two and one third inches across, obviously I have magnified two hundred and thirty diameters.

In the succeeding article I shall endeavor to show some of the remarkable things which the microscope shows in some varieties of photographic prints, and also to explain a little more about the eyepieces, objectives, condensers, and stops used in making these photomicrographs.

THE SELECTION OF ART PHOTOGRAPHS

WILFRED A. FRENCH, A. M.

When we recently called attention to the great lack of discrimination on the part of the general public in the selection of photographic reproductions of works of art, notably of famous paintings, we had no conception of the amount of ignorance that existed on this subject. This complaint refers not only to laymen, but to persons practicing photography, professionals as well as amateurs. This was demonstrated fully at the convention of the Photographers Association of America, held in this city last month, at which the principal art feature was the PHOTO ERA display of over one hundred art prints and photogravures of the old masters from the famous art publishing firm of Franz Hanfstaengl. The numerous excellences of this collection were commented upon by the speakers from the platform and by the critics of the daily press. To leisurely study these rarely beautiful reproductions of masterpieces of European picture galleries, exceptionally well displayed and lighted as they were, was deemed a privilege by many. To those whose acquaintance with the works of great painters was limited to indifferent copies of original photographs this collection was a revelation and a treat. The clearness and accuracy of detail, the fidelity of color values, the harmony of tonal gradations and the warm sepia tone of each individual print justly excited the admiration of every one. There was not one impression in which the highest light was pure white. This circumstance alone proved of value to the investigator. Never before have the advantages of the carbon printing process been so brilliantly displayed, while at no previous photographic convention has been shown a collection of art photographs of so important a character. Indeed, it is generally admitted that this is the first instance in this country where the value of photography in correctly reproducing the color values of oil paintings has been successfully demonstrated. It, therefore, behooves our art museums, public libraries and schools — institutions as well as individuals — to exercise intelligent discrimination in the choice of photographic reproductions of works of art, — paintings, sculpture, tapestries, etc., designed to serve as a medium of art instruction. It is not enough to be prepared to acquire such photographs regardless of cost, for a high price is no guaranty of the technical superiority of a photographic reproduction — print or photogravure — any more than it is of the artistic excellence



FROM AN AMERICAN COPY



FROM AN ORIGINAL CARBON PRINT

or genuineness of an oil painting. Expert knowledge and practical experience are the requisite essentials in the acquisition, or acceptance as donations to public institutions, of photographic copies of works of art. The only alternative is an absolutely reliable source of supply — an art-publishing firm, the name of which shall be a synonym for the highest standard of honesty and excellence. A list of such concerns, including the best houses of the world, was published in the preceding issue of this magazine.

We recently pointed out the technical difference between the highest and the inferior grade of photographic reproductions of famous paintings and sculptures, intending at the same time to practically illustrate our point. As lack of space prevented, we now present what we consider examples of good and bad reproduction of a famous painting—Rembrandt's so-called "Johann Sobieski, King of Poland," one of the gems of the Hermitage Museum at St. Petersburg. One of the two half-tones is from a carbon print by Hanfstaengl, showing the richness of detail and harmony of gradations from the highest light to the deepest shadow. The other was made from a copy of an inferior photograph which we purchased of a well-known art dealer. Comment on the latter is unnecessary.

EDITORIAL DEPARTMENT

THE BOSTON CONVENTION

Under the presidency of George Graham Holloway of Terre Haute, Ind., the Photographers' Association of America held its quarter centennial convention in Boston, August 8-11 inclusive. The attendance was the largest ever recorded at any previous convention, the manufacturers' exhibit was the most successful ever given, the addresses were of the first rank, one of them being accorded the honor of being published and preserved in pamphlet form by vote of the Association — while the picture show was excellent. The entertainments planned, which included two musical concerts and a sail down the harbor, went off without a hitch. The PHOTO ERA exhibit of carbon reproductions from the old masters attracted much attention, while all agreed that the PHOTO ERA concert on Thursday evening, under the management of Mr. Wilfred A. French, touched the high water mark of artistic and social success, at the convention. From start to finish there was nothing to mar the complete realization of the program as planned. The convention moved like clockwork to the end.

Rarely does it happen that a convention of this kind is pitched upon so high a plane and kept there as was this Boston convention. The names of the Executive Board for 1905, headed by George Graham Holloway, President, should be written high up upon the Association's roll of honor. Their achievement at Boston marks an epoch in the history of the Association's progress. The election of Charles Wesley Hearn as the new President gives much promise for the future, as he is a man of large executive ability and of untiring energy. If we can judge the future by the past, his administration of the affairs of the Association during 1906 should be distinguished and progressive.

WOMEN PHOTOGRAPHERS

One of the most striking features noted at the recent Boston convention was the large attendance of women photographers at the various sessions. They followed the proceedings with the closest attention, and indicated by their applause from time to time the deep interest they took in all that went on. Mary Carnell of Philadelphia, the Gerhardt sisters of St. Louis, Mrs. Rhinehart of Omaha, Miss Hall of Brookline, and Miss Reith of the Strauss Studio, St. Louis, were some among the many we noticed in constant attendance at the meetings.

It brings to mind again the fact that we have so often emphasized in these pages, viz.: that no better opportunity for professional success is offered to women to-day than may be found in the comparatively unoccupied field of photography.

It is a new field open to women of good taste and artistic refinement with industrious habits and fair business ability. A year's preparation of study, reading, and practice as amateur photographers, or better still a training in some well-established studio would soon equip them to make the start. Then, agreeable manners, well-directed intelligence, good judgment, close application to business would soon bring its own rewards.

Portraiture by photography is a work which requires a certain deftness of sense, which is inherent in most women, and which is as necessary to successful photography as it is to the proper care of the sick. The ability to create the picture which the imagination sees is the first step in picture making. And the average woman's intuitive grasp of graceful line and pose would soon discover a charm and delight for the sitter in the picture that was not suspected before. Next to beautiful pictures, the receptionist lady is the most important factor in the successful studio. Standing, as she does, between the public and the photographer, her tact and her ability can make or mar the artist's success. Her importance was so recognized by the convention that an evening was devoted to a discussion of her work, under the leadership of Chas. W. Hearn.

PHOTOGRAPHY A FINE ART

Without the resolution in your hearts to do good work, so long as your right hands have motion in them, and to do it whether the issue be that you die or live, no life worthy the name will ever be possible to you; while in once forming the resolution that your work is to be well done, life is really won, here and forever. — JOHN RUSKIN.

These words of the greatest art critic of modern times are full of inspiration for the serious worker. They are specially valuable for the photographer at this time, when the recognition of his art is so close at hand. One of the most encouraging features of the recent Boston convention was the deep interest and enthusiasm with which the professionals received the address on "Photography a Fine Art — the Camera a Medium of Individual Expression." The convention voted unanimously to print this address in pamphlet form, that it might be preserved and read by all its members. Some years ago such a subject would have been received with misgiving, not to say with indifference, by any gathering of professional photographers. The struggle for bread and butter was so great, and the tide of commercialism so strong that the chase for the almighty dollar crowded out every other consideration. But the world does move, and among the arts photography is moving the fastest. It appears that at nearly all the recent international expositions, notably those held at Glasgow, Lille, and Turin, photographs have been hung in the Fine Arts sections with paintings, etchings, wood engravings, etc. In Germany, at the three great annual art exhibits, in Berlin, Dresden, and Munich, photography has been recognized. At Dresden, from May to October, 1904, were hung two hundred and six photographs, in a pavilion adjoining the Fine Arts exhibit. The same ticket admitted to all, both shows being held under the same auspices. At Munich the photographic exhibitions are held under the same or similar conditions. Finally, in Paris, at the annual autumn salon, held in the Petit Palais last year, photographs were accepted and hung in the same building with paintings; thus giving the final sanction to photography as a fine art, from the highest art tribunal in the world.

With these facts in his possession the photographer should adopt the motto of Ruskin given above, and resolve to do good work, so long as his right hand has motion in it, if only for the sake of advancing himself and his profession.

A WORD WITH OUR READERS

We have recently had several complaints from readers that they were unable to buy the PHOTO ERA in places where they expected to find it on sale. While we try to have the PHOTO ERA carried by dealers everywhere, some do not desire to handle it, and others we have perhaps not reached. We would therefore esteem it a favor if our readers would let us know of places where the PHOTO ERA should be on sale and is not. The proper way of ensuring regular receipt of the magazine, however, is to become a subscriber and thus receive it promptly by mail on or before the first of each month. We shall return to this subject in our next issue and offer some strong inducements for every reader to become a subscriber for the ensuing year.

We also wish again to call our readers' attention to the other photographic publications of this company, *The Practical Photographer* and *Art in Photography*. Both show a healthy growth considering their age, and the first, particularly, has a far larger circulation than the PHOTO ERA at a corresponding period of its growth. The early numbers are almost out of print, less than fifty copies of some being in stock, and complete sets will soon be impossible of attainment. Orders for missing copies are solicited now, as the opening of the fall campaign will soon put the early numbers out of print. Of the first number of *Art in Photography* but six copies are left, and these may be obtained at \$3.00 each until all are sold.

THE ROUND ROBIN GUILD

Conducted by Elizabeth Flint Wade. Specially designed for the amateur photographer and the beginner. Membership may be obtained by sending name and address to the PHOTO ERA.



R. I. CAUGHY

FIRST PRIZE, CLOUDS

"O golden month, how high thy gold is heaped!
The yellow birch leaves shine like bright coins strung
On wands; the chestnut's yellow pennons tongue
To every wind its harvest challenge. Steeped
In yellow, still lie fields where wheat was reaped;
And yellow still the corn sheaves, stacked among
The yellow gourds, which from the earth have wrung
Her utmost gold."

September — The gold month of the year. For the saddest days are not yet with us, and golden-rod blooms on the hill, in fence corners, and by the roadside. The birds in noisy flocks discuss their journey which they purpose taking to warmer climes and softer airs. All the fruits of autumn are gathering in from the mellow sunshine stores of richness to delight us when snow lies deep about the doors and winter winds whistle boisterously up the chimneys.

September is the crown of the year. Our vacation days are over, and days of toil lie before us; but September beckons us to linger in the fields,

to roam through the still green woods, to wander by the singing waters, and obeying her request we cheat ourselves into the belief that winter is far away.

But September days will not linger. They come, they go; and close upon their heels treads the royal October procession.

The trees — our friends the trees — are already showing here and there that they are adorning themselves for the grand display. How the aspect of the trees changes the appearance of the landscape. Stretching their bare boughs 'neath wintry skies, covering themselves with faint soft gray like misty garments, stepping forth in fresh spring green, standing listless in the deeper tones of summer, or gorgeously decked to usher out the departing year, — in each and every phase they are beautiful.

One cannot imagine a treeless landscape. Yet there are such, and not so many leagues' travel from our tree-peopled land, either.



THEODORE D. HURD

FOURTH PRIZE, CLOUDS

TREES IN LANDSCAPES

LISTEN. A traveler from the East was waiting in a little way station in Arizona for his train. His companions were a mother and child. The little girl of perhaps seven or eight years was dancing about under two dejected-looking cottonwood trees that stood at the side of the little shanty that served as a station. She laughed and waved her hands, and called to the rustling leaves as if they were loved playmates.

The traveler watched the child, and by and by turned to the mother and said, —

"Your little girl seems to enjoy those trees."

"Oh, sir, indeed she does," was the reply; "and well she may — she never saw a tree before!"

Charles Dudley Warner, in his book about "Badeck and That Sort of Thing," says that he never knew how much it added to the beauty of a river to have water in it until he visited Nova Scotia and saw the Gaspereaux at low tide. The wonderful tides that ebb and flow in the Bay of Fundy twice a day empty and fill the rivers which flow into it, and the beautiful Gaspereaux which runs through the Acadian valley becomes at low tide a channel or deep gully of slippery, slimy mud.

Had Charles Dudley Warner visited Arizona and the Navajo country, he might have said that

he never knew how much trees add to the beauty of a landscape until he saw those treeless plains and deserts.

The traveler to whom allusion has been made, journeying across the Navajo desert, stopped over night at an Indian trading post. The next morning, being rather uncertain of the route, for there are no main traveled roads, no guideboards to mark the way, and at the most a bare suggestion of a highway, the party asked explicit directions.

"You must go on about twenty miles," said the trader, "until you reach a certain tree, then you must bear to the right."

"But how shall we know the tree?" was the question.

"Why, you can't mistake it if you try," answered the trader. "There is only one tree."

They found the tree, a stunted, gnarled, and knotted thing, which bore on every part the marks of its struggle for existence.

Would not those people who dwell in those silent places give thanks for our wealth of trees? Like the East Indian — they on the Indian Sea by the isles of balm, — they would say, "Allah il Allah! Thanks to Allah who gives the trees!"

Have any of our members thought of this wonderful gift of trees when making their studies for our competition, "Trees in Landscape"?



CHAS. VANDERVELDE

FIRST PRIZE, ANIMALS

ROUND ROBIN GUILD COMPETITION

SUBJECT for the September competition, "Foreground Study." Closes October 31.

First prize: A yearly subscription to *Art in Photography*, value \$10.00.

Second prize: \$5.00 in photographic books or magazines, published or advertised by us, to be chosen by the winner.

Third prize: The choice of a yearly subscription to the PHOTO ERA or the *Practical Photographer*.

Fourth prize: One number of *Art in Photography*, value \$2.00.

SUBJECTS FOR COMPETITION

August. — "Trees in a Landscape." Closes September 30. Any picture in which more than one tree enters as an important feature of the composition.

September. — "Foreground Study." Closes October 31. Any picture in which the foreground or object in it forms the chief interest. The space above the horizon line may not be more than one quarter of the picture.

RULES

Any number of prints may be submitted by any member of the Round Robin Guild. Membership in this is free, and may be obtained by application to this office. One or two recent prize winners who are not members of the Guild may obtain their prizes by joining.

Every print must bear on the back the title, author's name and address, and Guild number, with the words "Round Robin Guild Competition." Unsuccessful prints will be returned if postage is enclosed and request to that effect written on back of print. Prints not so marked are liable to destruction after judging.

AWARDS

THE competition "Animal Studies" brought a large collection of pictures from members in nearly every State in the Union, and also from Canada. Some very interesting pictures were sent and some very unusual ones. Now that hunting with the camera is taking the place of hunting with guns, the results are far more gratifying. Instead of a mangled body, we have the wild creatures in their



GRACE E. MOUNTS

SECOND PRIZE, ANIMALS

native haunts. Mr. F. S. Andrus of Lowville, N. Y., sent a picture of a woodchuck sitting at the mouth of his burrow taking a survey of the scene, and a picture of a chipmunk coming out of the entrance of his home in a hollow tree. Mr. C. J. Naylor of California sent an interesting picture of an Angora goat coming round a rocky spur of a mountain. A number of bird pictures were sent in, and members who sent them are requested to send them in for the competition of bird life. A mocking-bird on its nest was one of the pictures and a blue-bird feeding its young was another, both unusual and successful studies of birds.

The prizes are awarded as follows:—

First prize: Chas. Vandervelde,

Second prize: Grace E. Mounts,

Third prize: John M. Schreck,

Fourth prize: Edward E. Bowman.

Honorable mention: F. S. Andrus, Charles E. Bali, Frank E. Church, H. P. Dahlen, Fred. Farrington, Miss Hattie Goodnow, Miss Lida Hutchings, Clyde Merrell, Lawrence Macomber, C. J. Naylor, H. F. Robinson, Mrs. E. G. Rolfe, Allie G. Sawyer, L. L. Shaw, William Spanton, John Waddell, Robert E. Weeks, G. Wallace Williams, C. M. Whitney.

PHOTOGRAPHY IN ILLUSTRATING

THE number of tramp photographers is legion, the number of specialists in this field is comparatively few. Doubtless this is due to the fact that the camera is one of the most versatile of instruments, and one longs to exploit it in every field which opens before him. Many amateurs wish to turn an honest penny with their instruments, but it is not until one sets himself a special task and devotes himself to some special work that he can be at all sure of remuneration for his efforts.

I have an instance of this in mind which has just come under my observation. A writer on natural history wished some photographic illustrations made for an article on grasses. An amateur offered to do the work for him and exhibited some of her pictures as a proof of her ability. The prints ranged through a wide list of subjects, their qualities being as diversified as the subjects. However, she was given a trial, and many plates and much time were wasted, with far from satisfactory results. The consequence was that the author had to seek out a photographer who had made a

specialty of photographing still life, and who, being skilful in this field, turned out some beautiful pictures.

One has only to take up some special branch of work, pursue it steadily and systematically, to make this work of monetary value. More and more the camera is coming to the front in the line of illustration, especially in works of science and nature.

Works of science derive their value from the accuracy of their minute detail. Take, for instance, the science of zoology. The importance of having good pictures of rare specimens is at once obvious, but most of the works on this subject are illustrated with drawings, and many errors naturally occur, both confusing and misleading to the student of natural history.

Botany has advanced farther than zoology, owing to the fact that plants and herbs were cultivated for medicinal purposes long before they were dissected and classified, and the botanist had his living specimens which he might study at his leisure. There is good work along this line for the amateur photographer, most books on nature study being illustrated with photographs. However, there is room for great improvement in these same illustrations, and the amateur who devotes himself to becoming an expert in this department has a lucrative employment assured.

Medical and surgical science have impressed the camera into service, and depend on it to mark the progress of all medical operations.

If one does not care to work along scientific lines, then industrial photography presents a diversified and remunerative field. The photographing of commercial products is a paying business and one which is daily increasing. All of the railroads now send out folders with photographic illustra-

tions showing the attractiveness of the route over which the road runs.

The daily papers use many illustrations, and the photographing of current events is one of the features of our daily news. Many an honest penny may be turned in this department, even though the amateur be not counted on the staff of the paper.

It is the amateur who is willing to work, and who is willing to work along a certain line until he has become a master of the same, who will win success.

Do not be a tramp photographer, nor one of those "wandering Thugs of art" who take everything within the field of the lens and yet take nothing worth preserving.

SENSITIZING PAPER

HAVE you ever tried applying sensitizing solution to paper by means of an atomizer? The idea was suggested some dozen or more years ago by Mr. E. W. Newcomb, and the editor of the Round Robin Guild has found it a very effective and simple way of obtaining certain effects in pictures, not otherwise possible with a paper evenly sensitized.

The atomizer used should have both tube and stopper of hard rubber, as metal either corrodes or injures the solution. The spray thrown should be so fine as to be a mist, and it is wise to test the atomizer before purchasing.

The first attempts are always experiments, so the amateur will do well to make his first trials with blue-print solution, that being the cheapest to prepare and the simplest. Then, too, when dry the paper shows just where the sensitizing solution has been applied.

Fasten the paper to be sensitized to a flat, smooth board by means of thumb tacks. Set it in a slightly slanting position and holding the atomizer perhaps a foot away from the paper direct the spray to the part of the paper where the heaviest or most distinct printing is intended. Squeeze the bulb gently so as not to soak the paper, and permit the solution to gather and run off. Where the solution is to be applied lightly so as to secure vignetted effects, hold the atomizer farther away from the paper and do not apply so freely.

When sufficiently sprayed, dry the paper in a dark room and print as for regular blue-prints.

When sufficiently skilful with the applying of the spray as to obtain the desired results, try



JNO. M. SCHRECK

THIRD PRIZE, ANIMALS

other solutions of silver and of uranium, formulas for which may be found in recent issues of the PHOTO ERA.

This way of sensitizing paper will suggest many ideas for decorative work, such as menu cards, letter-heads, postal cards, calendars, etc.

COMPOSITE PHOTOGRAPHS

THE following directions for making composite photographs are given at the solicitation of a number of our Guild members.

To make a composite photograph one makes several exposures on one plate of as many different subjects as there are exposures.

A seat is arranged and the place where the first subject's head comes carefully marked. All succeeding sitters must occupy the same position. Each one is posed in the same position, taking either a full face or a direct profile. The full face is the easiest to manage for the beginner. To regulate the time of exposure for a composite picture, divide the time required to make a normal exposure by the number of subjects that are to compose the composite picture. If the number is ten and the time of exposure ten seconds, then one second is allowed to each sitter. It is wiser to use a slow plate and make the exposure a little longer, rather than to use a very fast plate.

Place the first sitter in position, make the exposure, close the shutter and pose the next sitter, and so on until all have been taken. Use a slow developer; and if there are marked blemishes in the plate, tone them down by retouching.

At one time composite photographs were very popular,—football teams, baseball teams, athletic clubs, literary clubs, pupils pursuing the same studies, etc. The picture is supposed to bring out the prominent characteristics of the company thus photographed.

Francis Galton, the English scientist who originated the plan of making pictures in this way, advanced the idea that if a picture of a family of children should be made in every six months, one would find it a very interesting study of the growth of a family type or characteristic.

One can get a great deal of amusement out of experiments in composite photography. A dozen girls wearing hats photographed in a composite picture is very amusing, the head gear being unlike any creation ever evolved by the most erratic milliner.

DEVELOPING POWDERS

DEVELOPER in the form of powders is much more convenient for the amateur than developer in solution. Put up in quantities sufficient for developing two or three dozen plates, the solution is made up and when used thrown away. Developer in solution is apt to oxidize if left standing any length of time. Metol hydrochinon will oxidize in a few days if the bottle is not sealed.

The dry ingredients keep indefinitely; and when mixed for use, one is sure of fresh developer of uniform strength and accurate action.

To prepare developing powders, one has simply to separate the chemicals given for the formula into small quantities, wrap in waxed paper, and store in a tin box or in a glass jar with screw top, such as is used for Higgins' paste. Two formulas for developing powders are given, both of which work well.

For hydrochinon developing powders, divide $\frac{1}{2}$ oz. of hydrochinon into eight parts, 30 grains to a part. For each thirty-grain packet of the hydrochinon, make up a package consisting of $\frac{1}{4}$ oz. granulated sulphite of soda and $\frac{1}{4}$ oz. carbonate of potassium. To distinguish between the two chemicals and avoid mistakes, have the outside wrapper of the hydrochinon blue, and the outside wrapper of the soda and potassium red. When ready to develop, dissolve a hydrochinon packet in 8 oz. of water, and when thoroughly dissolved add the contents of the soda and potassium packet. If the developer works too rapidly, dilute with more water. This developer gives negatives with clear printing qualities, and prolonged development will not fog the plate.

Metol hydrochinon powders are put up as follows: Make up packets containing 15 grains each of metol and hydrochinon. For each packet of this developing agent, make up a packet consisting of $\frac{1}{2}$ oz. sulphite of soda crystals and 150 grains of carbonate of soda crystals. To mix, dissolve the metol-hydro packet in 10 oz. of water, and add the soda packet. This is a fine developer for transparencies and lantern slides, giving a rich, warm black and bringing out clear, sharp detail. This is also a fine developer for gas-light papers, the prints developed not requiring fixing in an acid bath, as this developer does not stain.

OLD ACQUAINTANCE

DOUBTLESS our competitors think that the competition of "Old Acquaintance" has been forgotten, for it closed some time ago. Owing, however, to the monthly competitions being so well patronized, the special competition was moved on. Many excellent pictures were received, the set taking first prize going to Mr. James A. Young, Pictou, Canada, and the second prize to Miss Jean Hutchinson, of New Jersey. Mr. Young's pictures of the miller in the old mill and of the cobbler at his bench are especially interesting, while Miss Hutchinson's picture of the spinster who lives by herself on the outskirts of the village is very good indeed.

Curiously enough, Mr. Young introduces us to the masculine life, while Miss Hutchinson has chosen the feminine life of the village.

ANSWERS TO CORRESPONDENTS

HARRY ESTILL. — Amidol is a very energetic developer and produces a negative of excellent printing qualities. It acts quickly, the development being completed in about three minutes. A good formula is made of amidol, 20 grains; sulphite of soda crystals, 90 grains; water, 10 oz. When ready for use, add a few drops of a ten per cent solution of bromide of potassium.

G. H. L. — There are no dues nor fees in the Round Robin Guild. Any amateur may join, and on receiving name and address membership card and circulars will be mailed to you. Use a ray filter for pictures of clouds. You will get better results for the purpose for which you wish to put the negatives.

SARA F. — Use the non-curling films and you will have no trouble with the films not remaining flat both during and after development. Before development place the films for two or three minutes in water.

G. HARDIN. — You may take part in as many of the contests given by the Round Robin Guild as you desire. If one takes a prize in one contest, it does not debar him from entering pictures in the next contest. Subjects are published three or four months ahead, so that the amateur may have plenty of time to make pictures.

L. P. A. — Exposure meters are sometimes very convenient instruments to have, but you would find it burdensome to confine yourself to their use entirely. One must learn to judge the actinic power of the light, which can be determined in a great measure by the illumination of the ground glass. There are exposure tables for conditions of weather and for interiors.

B. R. T. — Your negatives, which since intensifying with mercury have faded, may be restored by soaking them in a preparation of Schlippe's salts, 40 grains; water, 4 oz. Let them remain in this solution until they are of the desired density, wash well and dry.

THE QUARTER CENTENNIAL CONVENTION OF THE P. A. OF A.

ON Tuesday, August 8, the Photographers' Association of America opened its Twenty-fifth Annual Convention at Boston, Mass. It is probable that never before has there been such an outpouring of photographers, manufacturers, and dealers as thronged the Mechanics Building during the four days of this Quarter Centennial. On the whole the arrangements were excellent, and the various officers and committees deserve great credit for providing one of the most pleasurable and instructive conventions the Association has ever known.

The President, George G. Holloway of Terre Haute, Ind., called the convention to order and introduced Lieutenant-governor Curtis Guild of Massachusetts, who welcomed the photographers in the name of the city and of the State, also expressing great interest in their work and urging them to hold the art of photography high in their estimation. Morris Burke Parkinson of Boston responded to this address of welcome in an able manner, and was followed by President Holloway, who thanked the Lieutenant-governor for his welcome and in the name of the Association welcomed the delegates to the convention. The principal speaker of the day was Thomas Harrison Cummings of Boston, Editor of the PHOTO ERA, who delivered an address on "Photography; Its Recognition as a Fine Art, the Camera a Means of Individual Expression." By special motion it was unanimously voted to reprint this address in pamphlet form, for distribution among the members of the Association. Alfred Holden, W. M. Hollinger, and G. Cramer closed the day's session with informal talks on photographic subjects. In the evening an officers' reception was held in Paul Revere Hall, at which C. W. Hearn of Boston presided. George Rockwood of New York, C. L. Lewis of Toledo, Frank Puffer of New York, and C. J. Van Deventer of Decatur, Illinois, were among those who spoke on the "Reception Room."

Quite a portion of Wednesday's session was devoted to the reports of the various officers. F. A. Bement of New York was the principal speaker of the morning, and his address on "The Art of Elimination," using the illustrations of the August PHOTO ERA as examples, proved to be one of the most instructive of the convention. E. E. Shores of Indiana also spoke on "The Financial Side of our Profession."

Wednesday evening the entertainment committee provided a very enjoyable concert at Paul Revere Hall which was well attended.

Sidney Allan addressed the convention Thursday morning on "A Plea for Good Taste and Common Sense." The lecture was well received and had many good points. At this session the election of officers was held, resulting as follows: President, Chas. Wesley Hearn of Boston; First Vice-pres-

ident, C. J. Van Deventer of Decatur, Ill; Second Vice-president, G. F. Bradley of New York; Treasurer, F. R. Barrows of Boston; Secretary, G. Edward Wilson of Savannah, Ga. It was also decided at this time to hold the convention at Niagara Falls next year.

In the evening, the PHOTO ERA staff gave a complimentary concert in Jordan Hall, N. E. Conservatory of Music, before a large and appreciative audience. It was under the direction of Mr. Wilfred A. French, who had secured a musical treat which proved both an artistic and popular success.

All interest Friday morning centered itself upon the announcement of prize awards, which were as follows:—

GRAND PORTRAIT CLASS

- 1st. Dudley Hoyt, Rochester.
- 2nd. M. B. Parkinson, Boston.
- 3d. J. W. Porter, Youngstown, Ohio.

GENERAL PORTRAIT

- 1st. J. C. Strauss, St. Louis.
- 2nd. S. H. Lifshy, Brooklyn.
- 3d. Towles Studio, Washington.

As a whole the exhibition of pictures this year was disappointing. The average certainly was not what might have been hoped for, considering the special efforts and money prizes offered as inducements. It is true there were many splendid and thoroughly artistic examples of portraiture; the result being that they stood out with more than ordinary distinction and in striking contrast to the others. Many of the backgrounds used this year were either too insistent or inappropriate, and the common tendency toward retouching every wrinkle and trace of character out of the face was too frequently exemplified.

The afternoons were given over entirely to the manufacturers for exhibition and demonstration, with the exception of Friday afternoon, when practically every one accepted the hospitality of the Entertainment Committee and enjoyed a pleasurable sail to Nantasket. On Thursday afternoon the ladies of the convention, greater in numbers this year than ever before, were given a trolley ride under the auspices of the American Aristotype Company.

Never before have the exhibits of the manufacturers been so complete or attractive, and in several cases the displays must have been extremely expensive. The exhibit of the American Aristotype Co., with Mr. Pattison in charge, consisted of an elaborate picture display and the ever popular school of photography, where demonstrations of posing, lighting, and printing were conducted with the aid of their electric light apparatus, which was the special feature. The exhibit of the C. P. Goerz Optical works also consisted of a studio



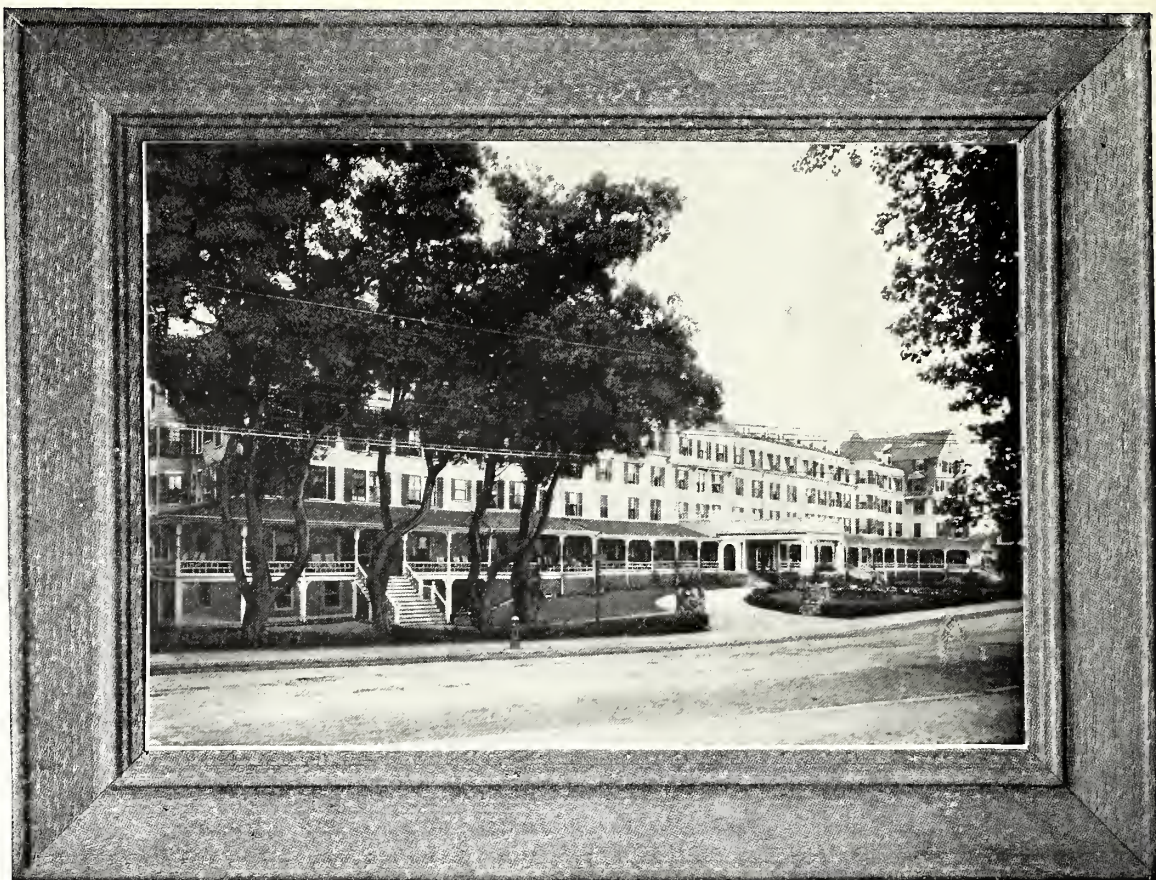
The Largest Portrait Lens

ever constructed is shown above. It has the enormous speed of F-2.2. It was made in the works of the Bausch & Lomb Optical Co., and the natural inference is that a manufactory that is equipped to turn out this class of work will find the making of an ordinary portrait lens a comparatively easy task. Bausch & Lomb Portrait Lenses are widely known and valued for those special qualities which appeal most strongly to the portrait photographer. In addition to these they have mechanical improvements which are found in no other lenses.

Catalog Free.

Bausch & Lomb Optical Co.,
Rochester, N. Y.

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N O W O P E N

Special Rates for September
AINSLIE & GRABOW

in which portraits were taken under a Cooper-Hewitt light, to demonstrate the advantages of the new Celor lens. In the able hands of Mr. L. J. R. Holst, Mr. A. R. Boursault, and Mr. Benson this exhibit attracted much attention.

The sepia platinum display of Joe Di Nunzio, with himself in charge, proved to be one of the most elaborate and artistic exhibits of the convention, the demonstration of cold development being especially interesting. Near by sample packages of the Lumière plates and paper were being distributed in large quantities by Mr. Claudius Poulailhon, Mr. Brouletour, and J. M. Drivet, who did much to make themselves as well as their goods popular. "Papa" Cramer was also on hand with an able corps of assistants to talk the Cramer plates and chemicals, samples of which were freely handed out. Mr. M. A. Seed and Mr. L. F. Hammer, Sr., were both in charge of their respective booths, both of which were attractive; and Mr. H. A. Collings represented the Standard plate.

All of the lens makers were well represented. The exhibit of J. H. Dallmeyer, Ltd., with Mr. F. G. Burgess in charge, was extremely interesting; and Mr. Burgess is to be congratulated upon his collection of pictures made with the Dallmeyer lens. Messrs. Yatman and Huesgen represented the Voigtlaender & Sons Optical Co., with a fine display of Collinear lenses and other well-known products of this firm. Mr. S. Trenner was also on hand with an interesting display of lenses from Ross, Ltd., while the Bausch & Lomb Optical Co. were represented by Messrs. Edgeworth and Zeller. Their display of lenses and shutters was complete in every particular.

An excellent display of Rotograph and Rotox papers was shown by the Rotograph Co., while George Murphy, Inc., made a big feature of Auto-type carbon, — a paper which will do much to make the carbon process popular. Another attractive paper display was that of the Doyle Matt Albumen Paper Co., of New York. Various colors may be secured on Matt Albumen by varying the proportions of the toning solution. Among the other photo-paper concerns in evidence were Willis & Clements, The Artura Photo Paper Co., and the Cossitt Photo Paper Co.

Cards and mounting papers were displayed in an endless variety. Taprell, Loomis & Co., as usual, had many dainty and novel designs to offer; the Bay State Card and Paper Co. were showing the ever popular Mitineague covers and many pleasing designs of their own. Carl Ernst & Co., The Bridges Manufacturing Co., The E. T. Hurlburt Co., The Housh Co., The W. O. Wood Manufacturing Co., and M. M. Frey of New York all exhibited mounts.

The Sprague & Hathaway Co. showed a splendid display of oil portraits, miniatures on ivory, and charcoal drawings, while F. Harry Hall of the

Berlin Aniline Works had without doubt the most novel exhibit of the convention. It consisted of an old Dutch windmill, in which were shown negatives and transparencies illustrating the fine qualities of Agfa and Isolar plates and chemicals. It was one of the sights of the convention, and many stopped to admire and praise the enterprise of this firm.

The Eastman Kodak Company contributed a handsome display, as usual, consisting of a superb collection of Royal bromides in sepia, and a refreshment stand which was appreciated by all. Messrs. Guthrie, Chase, Robertson, and Barr were on hand to meet their many friends.

The Bellin Photo Enlargement Co., Andrew J. Lloyd & Co., The Prosch Manufacturing Co., The Rochester Optical Co., The Century Camera Co., The Morrison Photo Supply Co., The World Scenic Co., Pinkham & Smith, and G. Gennert were all represented.

Other important exhibits were Folmer & Schwing, with their Graflex cameras, The Prindle Process Co., advertising Obifo, and The Anthony & Scovill Co., with a fine line of studio cameras.

Wilson's Magazine, The Professional Photographer, The Camera, The Photographer, The Camera and Dark Room, Photo Critic, and The American Amateur Photographer were all on hand. And last but not least PHOTO ERA contributed a fine exhibit of reproductions from the old masters in carbon and photogravure.

Boston, Mass., August 14, 1905.

MR. THOMAS HARRISON CUMMINGS,

Editor THE PHOTO ERA, Boston.

Dear Sir: — We the undersigned, Officers of the Photographers' Association of America, here assembled with the members of the Entertainment Committee, do convey our regret to Mr. Cummings that he was not with us on this occasion. We wish to convey our heartfelt appreciation of the courtesy extended to this Association by the PHOTO ERA and yourself. Your exhibit of the old masters, your fine concert, and kindly editorials have done much to further the success of the Quarter Century Convention. In token whereof we have set our respective names, —

George Graham Holloway, Pres.

C. J. Van Deventer, 1st V. P.

J. M. Bandtel, Sec'y.

F. R. Barrows, Treas.

J. Evanoff.

G. E. Putnam, Sec'y.

Morris Burke Parkinson.

J. H. Garo.

Geo. W. Woodward.

H. A. Collings.

Jos. Di Nunzio.

Geo. M. Bolton.

NOTES AND NEWS

ART IN PHOTOGRAPHY: WITH SELECTED EXAMPLES OF EUROPEAN AND AMERICAN WORK. Edited by Charles Holme. Offices of *The Studio*, London, 1905. Price, \$2.00. Special summer number of *The Studio*.

This bulky quarto volume contains 112 reproductions of mostly well-known pictures by leading photographers of England, America, France, Germany, Italy, and Belgium. While most of the pictures chosen are well worthy of the honor, the selection in the case of each country entirely fails to be either an adequate or an impartial representation of the present standard of photographic achievement. The reason is not far to seek: the selection was evidently made from the standpoint of the Linked Ring and its allied groups,— a standpoint supported in the entire world by exactly three photographic periodicals, and yet one which has succeeded in impressing itself indelibly on the photographic literature of the last five years. Such is the value of organization. Probably the strongest impression produced by this book is the inadequate size of the plates; and next, the general gloomy effect produced by making the reproductions far too dark in many cases. This undoubtedly has the sanction of the authors, however, and the book is a valuable contribution to the literature of artistic photography.

ONE of the pleasant little gatherings on the side, in connection with the Boston convention, was the lunch at the Thorndike, given by the officers of the National Association to the Entertainment Committee on the afternoon of August 14. It was simply a jolly, heart-to-heart talk. After the eatables had been disposed of, the chairman of the Entertainment Committee, Mr. Evanoff, was addressed by Mr. Parkinson in his usual happy manner and was made the recipient of a handsome check from the National Association, as a partial reminder of the fact that the Association appreciated his untiring efforts in behalf of the convention. Mr. Evanoff feelingly responded, after which Mr. Holloway tendered to Mr. Collings, for transmission to his wife, a check which showed a similar appreciation of the efforts of the Ladies' Entertainment Committee (which was headed by Mrs. Collings). We might say that "Mrs. Collings' husband" also "feelingly responded," after which remarks were made by all present and the affair broke up with a hearty hand-shake all around.

Mr. Thos. Harrison Cummings, Editor of the PHOTO ERA, staunch supporter of the convention, was unavoidably absent. A letter expressing regret and signed by all present was sent to Mr. Cummings.

POSTPONEMENT of the Southern Tri-State Photographic Association Convention which was to be held at Birmingham, Ala., Sept. 12-15, 1905, is hereby announced until March 1906 (exact dates later), owing to the stringent quarantine regulations now enforced because of the prevalence of yellow fever in New Orleans, La.

Special arrangements have been made to admit members from Florida and Louisiana. Those of Louisiana desiring membership will please write Mr. Moses at New Orleans, and of Florida, write to M. Ed. Wilson, Savannah, Ga.

THE *Youth's Companion* of Boston offers in its tenth annual photographic contest, closing October 31, 1905, a thousand dollars in awards. The competition is open to all, and full particulars may be had by writing to The Photographic Department, the *Youth's Companion*, Boston, Mass.

ON September 1 the Folmer & Schwing Mfg. Co. will remove their factory and office to Rochester, N. Y., where they will have increased facilities for the manufacture of their products. For the benefit of the trade they will retain their salesroom at 175 Elm St., corner of Broome St., New York City.

JOHN CARBUTT, a leader of photography known to photographers the world over, died at his home in Philadelphia, July 26, after an illness of several months. He was born in Sheffield, England, and came to America in early manhood. Mr. Carbutt adopted photography in its earliest infancy for his life work. He made his first camera from a cigar box with a lens from an opera-glass, and made his own dry plates ten years before he revolutionized the American trade by the manufacture of his celebrated Carbutt plate in 1879. Later he introduced many brands of plates used in every branch of photography.

Mr. Carbutt had a most lovable personality which gained for him many friends throughout the civilized world, and his friends were cherished as one of his greatest blessings. He was ever ready to extend the hand of friendship to all, and to his helpfulness and generosity unfortunates can testify. Although of an unusually strong character and will power, it is safe to say he had not an enemy in the world.

Mr. Carbutt was the first President of the Photographers' Association of America, and did much to advance the interest of the organization. He was an active and valued member of the Philadelphia Photographic Society, the Franklin Institute, and many other scientific organizations, as well as the Historical Society, Philadelphia Bourse, Manufacturers' Club, Society of St. George, etc.

PHOTO ERA

THE AMERICAN JOURNAL OF PHOTOGRAPHY

VOL. XV

OCTOBER, 1905

No. 4

PUBLISHED AND COPYRIGHTED BY PHOTO ERA PUBLISHING COMPANY, 170 SUMMER STREET, BOSTON, MASSACHUSETTS
Entered at Post Office, Boston, as second-class matter

Editor: THOMAS HARRISON CUMMINGS

Associate Editors: WILFRED A. FRENCH, A. M., PHIL M. RILEY, HERBERT W. TAYLOR

Contributions relating to photography in any and all of its branches will receive our careful consideration. While not accepting responsibility for unsolicited contributions, we will endeavor to return them if not available, provided return postage is enclosed.

SUBSCRIPTION RATES

The annual subscription in the United States, Canada, and Mexico, | Subscription in other countries in the Postal Union \$3.50
is \$2.50. Single copies, 25 cents each | Always payable in advance

ADVERTISING RATES ON APPLICATION

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N. BROCK
A DREAMER
CONVENTION PICTURE



PHOTO ERA

The American Journal of Photography

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ON THE TRIMMING OF PHOTOGRAPHIC PRINTS

DAVID GRAY ARCHIBALD

Photographic prints must be trimmed, unless we use the "slip-in-and-about" mounts, of which there is but a limited variety, so these few hints jotted down at my trimming board may interest my fellow photographic workers.

I make little else than platinotype prints, 8 x 10 and under (except solio prints for reproduction work), still the things noted will apply equally well to prints of all sizes and on all kinds of papers. My views are mostly of subjects taken while traveling. Having done this work in some sixteen different countries and under all conditions of weather, from dreary rain to bright sunshine, the variety of my subjects is as great as is the experience I have gained.

To begin with, I believe that the trimming should enhance the value and beauty of the picture, should help to concentrate the attention on the print itself, and should in no wise cause the observer to notice the trimming; hence that it should be artistic, true, and very accurate. The attractiveness of an album of well-trimmed photographs is considerable, as is well demonstrated by the unattractiveness of one made up of views badly trimmed.

If the size of the prints admit of it, it is well to decide upon a size for finished (album) work just a little smaller than the original plate size as taken. This admits of modifying the prints a great deal in trimming and of correcting a great many faults that would otherwise mar their beauty. While doing it, we can often improve the composition of the picture.

For trimming from the artistic standpoint there seem to be no rules that can be given which will be really helpful: it is so much a matter of the taste and pictorial perception of the individual. Artists do not agree upon what is right, and we cannot hope to successfully follow their rather vague instructions. We can do no more than — which is a great deal — honestly do what we think right and thus satisfy ourselves in the matter. By striving to improve our taste by contact and association with good workers and with the careful study of the masters we shall gradually raise our standard of taste and improve the quality of our output. Talking with those who know the good from the bad and reading good works on the subject will act as pleasant helps. Whatever we turn out unaided, as satisfactory to ourselves, is our real present standard of excellence. Quality and not quantity is what tells. Most of the best workers, whose pictures are oftenest seen and admired, produce few pictures, but when the quality of the work is taken into consideration, the quantity can be said to be large.

It is well to "level up" your prints. In doing this I look to see what there is in the print to help me. If there is a sharply defined horizon, as at sea or on water, then there is a certain guide to go by. Measure up from it, marking the distance at two places, using dots made by a pencil to form a guide where to trim. The trimming I do with a sharp knife, guided by the edge of a ruler. Having secured this edge, measure down it the width of the print and trim again. This second cutting gives us two of the four sides, parallel with each other and truly horizontal. The ends may be trimmed off with a "chopper" print trimmer. Almost always we shall find some guiding line somewhere in the print to help us if we carefully look for it.



LAMSON STUDIO

CONVENTION PICTURE

If the subject is placed higher on the plate than we wish, we can lower it by trimming more from the bottom than the top. If lower than desired, then it is desirable to trim more from the top and raise it. If too much to one side, then trim more from the opposite side and center it as far as possible. These little helps to a print are useful only when you allow for them by permitting of some waste in trimming. I trim my 8 x 10 work down to 7 1-4 x 9 1-4 inches and find it well to do so.

The trimming machines of the stock dealers are a delusion and a snare. The better class of them only trim approximately true, while the worst kind just "hack" off so much paper. The better plan is to trim top and bottom edges (the important ones) with a sharp knife and a straight edge, always measuring the distance between them accurately and using the machine for cutting off the ends. These ends need not be so true, and with the machine we can trim a little at a time from either end until we take off all we want. I often, when it makes no special difference to the subject in hand, help a print that is too dark by cutting off more of the darker part than the lighter. In case the general effect is too light I trim off more of the lighter portion. Again, I am using



CARL_NORDSTROM

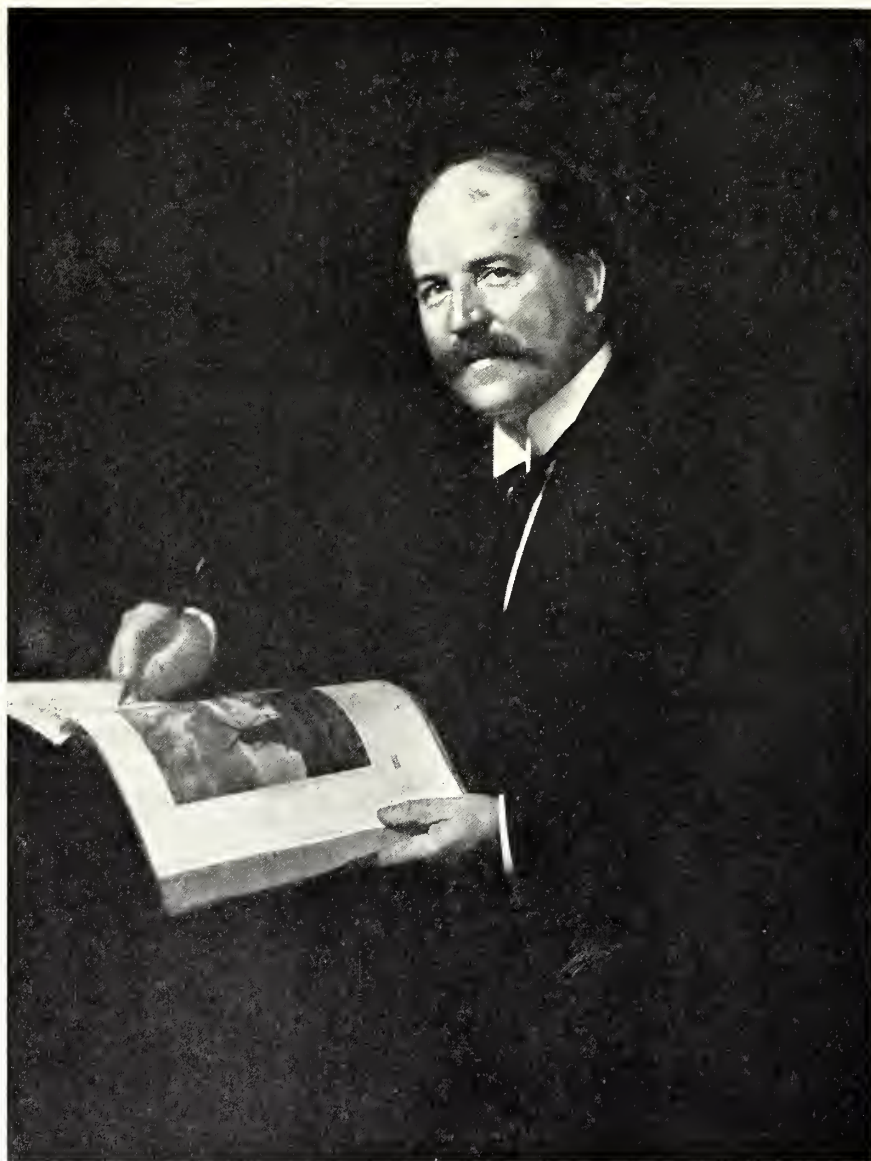
CONVENTION PICTURE

my allowed margin of waste to help my print. I often even cut down from 8 x 10 to 5 x 7 or smaller and get what of the plate is worth having.

To help improve our perceptions of the beautiful and get better prints we may trim them down gradually, meanwhile carefully considering the effect the trimming has. On good prints, yet to be trimmed, the use of two pieces of L-shaped cardboard is recommended. Overlap their ends and make the rectangular opening of different sizes, etc. This will show where the picture is in the print.

It is only in making albums that you need to keep prints of a certain size. To do this means greater ease in the making and more uniformity in the results. Uniformity of tone adds greatly in making a harmonious whole.

We should look upon trimming a print as if we were considering framing and not trimming it. The mount takes the place of a frame anyway and serves the same purpose,—that of separating it from other prints and of isolating it so as to produce a better effect. It is a great help, rightly and appropriately chosen.



FRANK R. BARROWS
THOMAS HARRISON CUMMINGS
CONVENTION PICTURE



THE PRINCIPLES OF PHOTOGRAPHY BRIEFLY STATED

PHIL M. RILEY

TENTH PAPER — STREET VIEWS

1. *Apparatus.*—Street photography is an art in itself, and although very different in nature and requirements, it is just as worthy of a worker's best effort and careful study as is landscape photography. In fact, so different are these requirements that some attention should be given them. Composition forms such an important part of landscape photography that the ground glass focusing screen with which all folding cameras are fitted becomes almost indispensable. With it the instrument may be set up on a tripod and the picture composed to the best possible advantage in its true size, but the hand camera, however, is constantly proving its superiority for street views, and a tripod for such work is unnecessary as well as undesirable. The best street pictures are always records of life and incident as we see them, entirely free from any visible consciousness on the part of the persons included which shows that they were aware of the camera. Any deliberate and extensive preparation will attract nearly every eye to the operator, and the sentiment of the picture will thus be lost. Moreover, the worker may think himself lucky if, upon emerging from his focusing cloth, he fails to find a ring of persistent street urchins posing about him with "take my picture" on every tongue. People have become quite accustomed to the hand camera, and the worker who has one with the ability to work it quickly can make countless exposures about the streets with scarcely a glance from passers-by. It will be a great help if the photographer happens to have the natural faculty of taking in a pleasing picture at a glance, getting it quickly in the finder and instantly making the exposure, but it can be cultivated with a little practice. All this goes to show that for street photography pure and simple small box cameras of about 4×5 size with few bothersome adjustments are, when fitted with good lenses and shutters, most satisfactory. Even the ordinary $3\frac{1}{4} \times 4\frac{1}{4}$, $3\frac{1}{4} \times 5\frac{1}{2}$ or 4×5 folding type of compact form may be used minus the tripod without attracting much attention if skilfully and quickly handled. Film cameras are very convenient because of the ease and rapidity with which the films may be consecutively presented for exposure. If one prefers plates on account of their low price or for other considerations, a magazine type of camera would seem best adapted to the purpose, and it is to be regretted that some enterprising manufacturer does not put one on the market which is fitted with a rapid lens having the U. S. iris diaphragms and a good shutter with quite a variety of speeds. For the enthusiast who can have whatever he desires and who may occasionally wish to make views of very rapidly moving objects, such as trotting horses, automobiles, trains, and the like, one of the several cameras now on the market which permit of focusing and watching an upright image the exact size of the plate up to the moment of exposure and are fitted with focal plane shutters will be found excellent.

2. *Finders.*—In hand-camera work the importance of an accurate finder at once becomes evident, and since the trouble usually is that the finder includes more than the lens, a test can easily be made and the fault corrected. Set up the camera and make and develop an exposure, meantime leaving the camera just as it was. Then compare the image in the finder with the developed negative. All objects or parts of objects seen in the finder which do not appear in the negative should be blocked out. If the camera gives a square picture, this is easily done by making and pasting in proper position over the top of the finder a tiny mask of opaque paper having a square opening of the right size to permit only the objects seen in the negative to be visible in the finder. Cameras giving pictures rectangular in shape, such as 4×5 , cannot be treated in this way unless there are two finders, one for vertical and another for horizontal views. Should this be the case, one finder may be covered with a permanent vertical mask and the other with one for horizontal views. Folding cameras have one hooded reversible finder and therefore cannot be permanently masked. A good method is to have two masks of thin sheet brass the size and shape of the top of the finder, or perhaps a trifle wider, so that they will fit

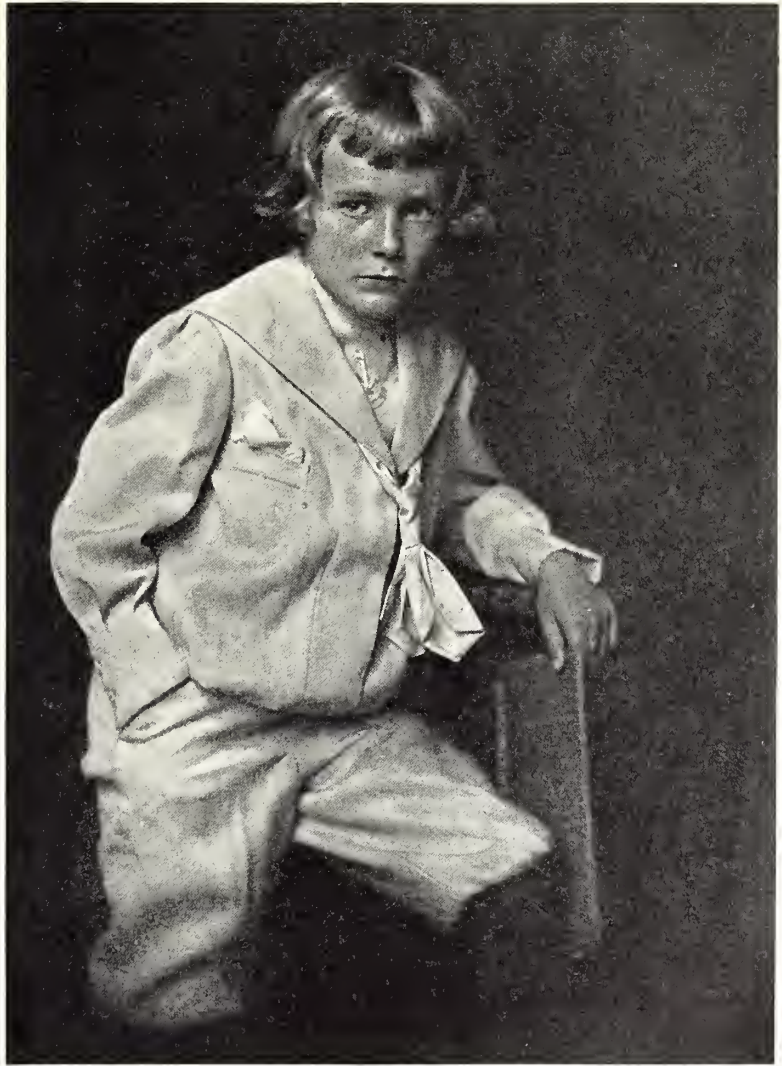


S. H. LIFSHEY

CONVENTION PICTURE

in tightly between the sides of the hood. In each of these masks an opening should be made of proper size and proportion, as indicated by a test negative, so that when one of them is laid flat on the top of the finder and pushed in between the sides of the hood until it touches the hood in front a vertical picture can be seen through the opening, or if the other mask is used, a horizontal picture appears. It takes but a little while to test and correct the finder in this way, and the certainty of knowing just what will be found on the negative amply repays one for the time spent. If by chance the lens shows more than the finder, note the difference so as to allow for it in actual work, or better, get a new finder. Any hand camera not fitted with a small spirit level will be greatly improved by its addition to the equipment. They cost but a few cents and can be accurately mounted with a little care.

3. *Lenses.* — A much better lens is necessary for street work than is required in making landscape views. Two important reasons may be given for this. First, the many straight lines of buildings and curbstones must be rendered as such without curvilinear distortion, and this requires at least a rectilinear lens. Second, the rapidity of moving objects in the streets often requires a very rapid lens, that is to say, one giving a sharp image with a large stop, so that



JAMES WOODWORTH PORTER

CONVENTION PICTURE

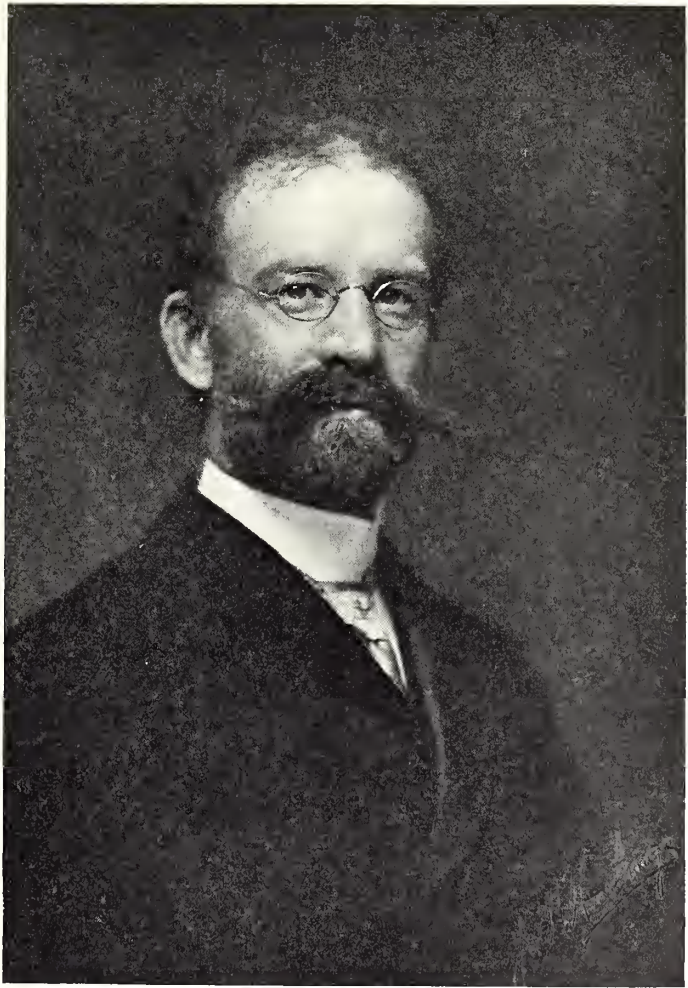
rapid exposures may be given as well as proper timing of the plate. The lens should at least have a speed of $f. 8$ (U. S. Stop No. 4), and one of still greater rapidity is much to be desired. In fact such a lens is indispensable if street photography is to be attempted on dull or wet days. It is far better to have a good lens in a cheap camera than vice versa, and the photographer who owns a good anastigmat with a speed of $f. 5.6$, whose focal length is the diagonal of the negative or a little longer, will find it of great advantage in nearly every branch of work, for it can easily be transferred from one camera to another and its single combinations may be used as long focus landscape lenses. The choice of a lens, of course, depends upon what we shall require of it and what we can afford. If we are content to confine ourselves to very ordinary street work in bright sunshine, a lens working at $f. 8$ will answer, but anything out of this class requires a more rapid lens. This brings us face to face with the problem of exposure, a consideration of which should settle some of our difficulties as to requirements, also telling us just what we can and cannot do with the lens we have.

4. *Exposure.* — In no other branch of photography is this problem of exposure so complex, the more so because there is usually time for but little thought or calculation, while tables or meters

are entirely out of the question. Views must be made upon the impulse of the moment, when a pleasing situation presents itself. For this reason there seems to be no method but to study the subject and so master the requirements of the work that when the pleasing situation does present itself the worker seems to *feel* instantly what the exposure must be. Without doubt most of the trouble experienced by beginners is the result of underexposure, either because too great dependence is placed upon the speed of plates when a lens of small working aperture is used, or because the shutter speed is much greater than the subject demands. This latter reason is by far the more common source of difficulty. Most beginners seem to get the idea that tremendous shutter speeds are necessary for all street pictures. As a matter of fact, however, a large majority of such views which are made in good light need no more rapid exposure than is required for their correct timing. It is only at intervals that an exposure shorter than 1-50 second is necessary, and 1-25 second is very often sufficiently rapid. However, this is not always the case, and the worker must be prepared for emergencies.

Objects.	Per Hour.	Per Second.	Per Second over Plate.						Approximate Full Exposures.			Approximate Full Exposures at 60 Degrees.		
			25 ft. away.		50 ft. away.		100 ft. away.							
			6 in. Focus.	6½ in. Focus.	6 in. Focus.	6½ in. Focus.	6 in. Focus.	6½ in. Focus.						
			25 ft. away.	50 ft. away.	100 ft. away.	25 ft. away.	50 ft. away.	100 ft. away.						
Pedestrians.	3 miles	52.8 inches	1.056	1.111	.528	.555	.264	.277	1 2 5	6 0	3 0	6 0	3 0	1 5
Cabs, Carriages, Bicycles, Trolley Cars in more or less crowded city streets.	6 miles	105.6 inches	2.112	2.222	1.056	1.111	.528	.555	2 5 0	1 2 5	6 0	1 2 5	6 0	3 0
Fast Trolley Cars, Horseback Riders, Automobiles in city streets.	8 miles	140.8 inches	2.816	2.964	1.408	1.482	.704	.741	3 0 0	1 5 0	8 0	1 5 0	8 0	4 0

In the table accompanying this paper will be found listed the moving objects which usually appear in street views, and to the right of these is given an approximation of their maximum speed in miles per hour under ordinary circumstances. The next column to the right gives the number of inches per second which the same objects will travel. 4 x 5 cameras are usually fitted with lenses of 6, 6½, and 6½ inches focal length. A lens of 6-inch focus gives an image of an object 25 feet away 1-50 of its true size, at 50 feet 1-100, and at 100 feet 1-200. Corresponding figures for a lens of 6½-inch focus are about as follows: 1-47.5 at 25 feet, 1-95 at 50 feet, and 1-190 at 100 feet. Using these figures as ratios we may find the number of inches per second which the image of the moving object will travel over the plate when the object itself is at the stated distances from the camera and with lenses of the stated focal lengths. For instance, if a cab is traveling at the rate of 6 miles per hour and its image is thrown on the plate by a lens of 6½-inch focus, the image will move over the plate at the rate of 2.222 inches per second. Thus we may say that the amount of motion is 222.2 times greater than may be permitted for securing a perfectly sharp picture, and therefore an exposure of 1-222 second will be necessary. Carrying out this idea and considering only the lens of 6½-inch focus, which demands the more rapid exposures, we secure the approximate full exposures of the next column to the right. Notice that in every case the approximations are more rapid than absolutely required, so as to bring the figures more nearly within the range of the ordinary shutter and also to insure getting absolutely sharp views.



GEORGE H. HASTINGS
HERBERT W. TAYLOR

CONVENTION PICTURE

Now these figures are calculated for objects passing directly by the operator at right angles to the direction in which he is facing and at the stated distances away. How often does one make a view of this kind — that is to say, a view straight across the street from side to side, and catch the moving object broadside as it flashes past? One almost never does. Such photographs have no claim to beauty and are difficult to make because of the great shutter speed required. Good composition usually demands pointing the camera more nearly in the direction taken by the street itself, or at an angle of from 60 to 80 degrees from the direction mentioned in the first sentence of this paragraph. This not only gives better perspective, but enables the operator to photograph moving objects while approaching toward or receding from him, thus reducing the apparent rapidity of motion. Let us suppose that we see a cab approaching, which when directly in front of us must pass about 25 feet away, provided it continues in a straight course. If we turn the camera toward the approaching cab at an angle of 60 degrees from a direction straight across the street from side to side, the cab will be seen in the finder when 50 feet away, and so we may reduce the exposure one half, or 1-125 instead of 1-250 second. But we also notice that the apparent rapidity of motion when objects are approaching or receding is much less than if passing directly in front of us at the same distance away. In fact, the exposure may again be cut in half for this, so that 1-60 instead of 1-125 second will be sufficient. Without moving the camera, let us sup-

pose that the cab so changes its course that it will appear in the finder when at a distance of 25 instead of 50 feet. The distance would seem to indicate $\frac{1}{250}$ second, but we are still viewing the object at an angle of 60 degrees, and the exposure may therefore be cut in half, making it $\frac{1}{125}$ second. In other words, viewing at this angle reduces the apparent rapidity of motion and consequent exposure one half, thus giving us the figures in the final column of the table. It is often desirable to point the camera in almost the same direction taken by the street, and this makes still longer exposures possible. Good shutters usually give a speed of $\frac{1}{100}$ second, and it should be noticed that in only two instances is a greater speed required when photographing at an angle of 60 degrees. The reader should also bear in mind the fact that the speeds given in the table are maximum under ordinary conditions and that the exposures given will rarely need to be as rapid as indicated. Cabs, cars, carriages, and bicycles — I omit automobiles — often move no faster than pedestrians, and at such times require no greater exposure. One must use judgment in the matter, but the novice will be surprised to find how much motion may be secured without blur by the exposure necessary for correct timing of the plate. Much also depends upon seizing the right opportunity to make an exposure; $\frac{1}{50}$ second may be sufficiently rapid at the instant, but five seconds later $\frac{1}{200}$ second would not give a sharp picture. All this proves that focal plane shutters are entirely unnecessary for making the most artistic street pictures, and also that the ordinary shutter, giving a speed of $\frac{1}{100}$ second, will do all that is usually required. The table shows that $\frac{1}{150}$ second is the highest speed needed for ordinary work, and one at least of the pneumatic shutters now on the market will give this speed.

Having formed some idea of the exposures necessitated by the rapidity of movement, the worker must not forget to consider the exposures required for correct timing of the plate. These may be found in Table I of the third paper of this series, which appeared in March. Exposures there given are calculated for the fastest plates and films, which should be used exclusively for all street work. A list of these will be found opposite Class I of Table II in the same paper. At this point the reader should have in mind a very clear distinction between what may be termed rapid exposures and small exposures, slow exposures and large exposures. "Large" and "small" seem peculiar terms to employ, but the distinction to be emphasized is between the duration of the exposure and the amount of light passing through the lens in that duration of time — that is, the distinction between exposures by the shutter and exposures by the diaphragm. In open landscape work where there is practically no movement an exposure of $\frac{1}{100}$ second may be correct for the timing of the plate with Stop No. 8, but the fastest speed of the shutter is $\frac{1}{50}$, so we stop down to No. 16 and get a correctly timed negative. This is commonly and incorrectly called a more rapid exposure than if Stop No. 8 had been used. The rapidity of the shutter's action was just the same, but the amount of light which passed through the lens had been reduced one half. In other words, it was a "small" exposure. With this illustration of the terms large and small let us compare the two tables.

A few moments' study will convince us that we shall find an anastigmatic lens of great advantage in making it possible to give an extremely rapid exposure and still time the plate correctly — give a "large" exposure. Suppose a street view is to be made in February at 2 P.M. An exposure of $\frac{1}{20}$ second is required for correct timing with Stop No. 8, but the principal object in the view is a rapidly moving trolley car about 50 feet away, and this requires $\frac{1}{80}$ second to get a sharp image. With an anastigmatic lens we set the shutter at the rapid speed necessary and open the diaphragm to Stop No. 2 and get a correctly timed negative without blur, for the stop used allows as much light to pass through the lens in $\frac{1}{80}$ second as would pass through Stop No. 8 in $\frac{1}{20}$ second. Another view is to be made on a dull rainy day in September at 1 P.M. Correct timing requires $\frac{1}{3}$ second, but a man and woman walking about 50 feet away require $\frac{1}{30}$ second. We again set the shutter at the rapid speed required and open the diaphragm to Stop No. 2 and get a correctly timed negative. A third picture is to be made in June at 9 A.M. and requires $\frac{1}{50}$ second. The nearest moving object is a cab probably 100 feet away, and an exposure of $\frac{1}{30}$ second will give a sharp image. In this case correct timing requires a more





FRANK MOORE

CONVENTION PICTURE

rapid exposure than the moving object, and we therefore give 1-50 second. Always calculate exposure with reference to the fastest moving object in the view which is near enough to appear so in the finder. Do not forget that it sometimes occurs that a man walking three miles per hour appears, because of his nearness to the lens, to be moving faster than a cab which is in reality going six miles per hour. These tables are of course intended for a study of the subject and not for reference in the field. The worker should retain in mind as much as possible of them and be ready to put what he has learned into practice at a moment's notice.

5. *Shadows.* — City streets are often partly and sometimes wholly in shadow, and here again we find a rapid lens of great help. A street view wholly in the shadow cast by tall buildings usually requires double the ordinary exposure in winter or late in the summer afternoons, when there is little contrast between the high lights and shadows, and nearly if not quite four times the normal timing in summer, toward the middle of the day. Scenes which are partly in the shadow and partly in the light should be given about double exposure when the shadows are very near, but if the nearest of them are from 35 to 50 feet or more distant, the ordinary exposure will be best.

6. *Composition.* — It is in composition that the photographer is especially hampered. The painter builds his picture with the objects he desires in it, and can convey his thought by placing them on whatever portion of the canvas best suits him — he has entire control over selection



J. C. STRAUSS

CONVENTION PICTURE

and arrangement. The photographer has a picture before him which he may take or not, as he wishes — he has control over selection. Arrangement is another matter. Buildings and the lines of streets cannot be changed at will, and therefore composition in photography becomes merely the choice of a point of view and a favorable time of day or condition of atmosphere. If these three conditions are not satisfactory, it will be useless to waste a plate. Unity and simplicity should ever be kept in mind, for they are the keys of successful composition. There should always be some principal object of interest, and the others should all be subordinated to it. This idea of principality and subordination is usually secured by means of light and shade, differences of focus and lines. Lines furnish the easiest means in street pictures, and for this reason the principal one should usually converge toward the point of chief interest, for if they run in a different direction the eye will probably be led away from that point, although unconsciously. Do not, as a rule, attempt pictures straight across a street from side to side or directly up or down the middle. Angles from 60 to 80 degrees are best. Such views will lead the prominent lines diagonally across the plate, and the worker should strive by this method to secure a great variety in the size of the angles formed by these lines. The chief objections to a view directly up the middle of a street are that the angles are nearly all of the same size and most of the lines converge toward the center of the plate, which is its weakest point. If a line does not improve a picture, make sure that it is not a detriment to it. There are exceptions to all rules, and so



FREDERICK A. FRIZELL

CONVENTION PICTURE

there are times when it is neither possible nor beneficial to have conspicuous lines leading toward the principal object. In such cases the character of the object itself will usually be sufficient to hold the attention, but care should be used to exclude strong lines which may lead the eye away from the point of interest. For such exceptions to precedent no better rule or advice can be advocated than the study of good pictures made by artists of repute. Notice the principles they have followed and try to apply them in your own work.

The sky-line is very prominent, and straight lines forming a V-shape should be avoided. Strive for variety rather than monotony; as a usual thing the more irregular the sky-line may be, the better. A slight change in the point of view may sometimes include a church spire, a tree, or other object which will break the monotony. People and other moving objects must often be made to form the chief interest, and we must therefore wait until they reach such a point in the view that they will bear a pleasing relation to the other objects included. Always hold the camera level, to avoid distortion, for it shows very plainly in street work. Regulate the foreground by the height of the instrument from the ground. Ordinarily hold it as high as possible and still be able to see into the finder, so that the picture will look as the scene did to the eye. Short views should be made with the camera at about the level of the waist. If more foreground is desired, lower the camera, if less, raise it, but do not tilt it upward or downward. When the principal object of interest is near the camera the foreground may occupy as much as two thirds of the picture, but if it is a considerable distance away, not over one third of the picture space should be given up to it.



J. A. LORENZ
EDITH THOMPSON, PIANIST



WILL ARMSTRONG
JOSEPHINE KNIGHT, SOPRANO



GARO
BERTHA CUSHING CHILD, CONTRALTO

Artists of the PHOTO ERA Concert
given in honor of the Photographers'
Association of America, August, 1905.



A. W. CORLIS

CONVENTION PICTURE

STAND DEVELOPMENT

ASSOCIATE EDITOR

Although stand development is no new process, but one long known and much used abroad, it has apparently found few advocates in this country. One obstacle, perhaps, has been the difficulty of getting a developing tank fulfilling all requirements. My early essays in the method were made with a grooved fixing bath of hard rubber or glass, which was filled with dilute developer, and into which the plates were dropped. There are some disadvantages connected with the use of this form of tank. It is usually not much deeper than the plates which it holds. Consequently, if it is filled to cover the negative when only one is put in, it overflows when it is full of plates. Again, the depth of solution above the plates is not great, and the top layer is likely to oxidize rapidly with some developers, which results in the plates being insufficiently developed at the top edge. It is also difficult to remove single plates for examination from time to time, as is necessary. Such a tank, however, will give satisfactory results if the plates are carefully immersed to avoid the formation of air-bubbles, and if they are turned upside down two or three times during the course of development. If a glass tank is used, it must be covered light-tight during development.

Far more convenient is a tank of the Hauff form, which may now be had in this country under the name of the "Auto-Tank." This is a zinc box about twice as tall as the plates to



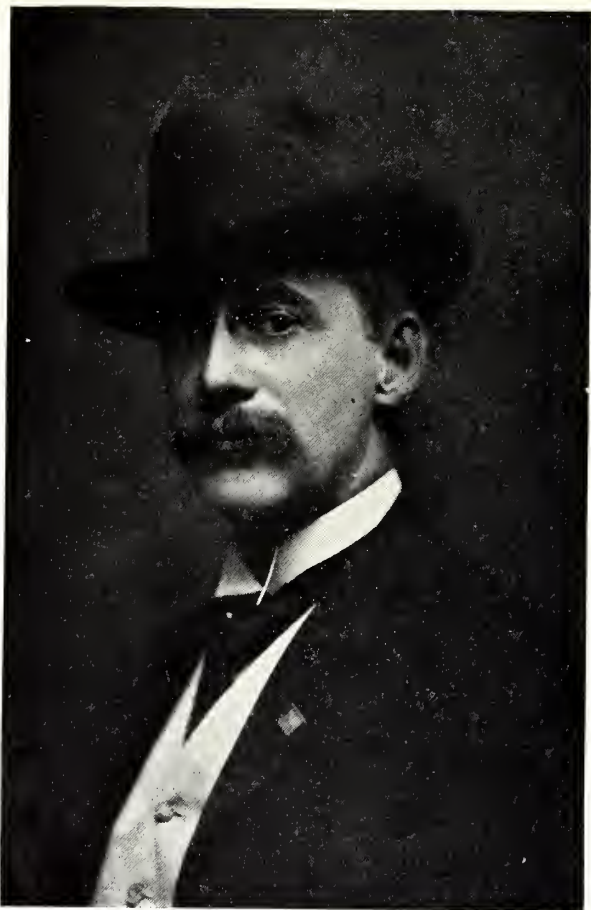
A. T. PROCTOR

CONVENTION PICTURE

be developed in it, and fitted with a cover. Within the box is a removable bottomless basket with grooved sides similar to an ordinary fixing box. Each groove will easily accommodate two plates placed back to back, and I am in the habit of developing fourteen 4 x 5 plates at one time. I have found it necessary to place only one plate in each outside groove, and to turn its face inward, otherwise the grooves on the side appear as vertical streaks after development.

In the use of the Hauff tank, enough dilute developer is poured in to fill it a couple of inches above the top of the plates. The plates are then put in the basket, either singly or back to back, as the number may necessitate, and observing the precaution just mentioned for the outer groove. All of this is naturally done in the dark room. The basket is then lowered steadily and cautiously into the developer, to avoid the formation of air-bells. To remove them if formed, the basket is then lifted out of the developer and replaced three or four times. The cover is now put on and the tank left to itself for a while.

The time necessary for development naturally depends on the dilution of the developer. Some experts prefer a developer which will do its work in an hour or even less; others use one at such a dilution that the process lasts over night. Most persons find two hours a convenient time. This will be attained by employing a developer about one tenth of the usual strength. In using such a solution, the plates should be examined at the end of fifteen minutes. The relative exposures can then be easily determined. On plates much overexposed, the image



MARY CARNELL
CHAS. WESLEY HEARN

CONVENTION PICTURE
PRESIDENT, P. A. OF A.

is likely to be fully out in all details, and such a plate should be removed and treated with strong, well-restrained developer. This gives contrast, but for those who like thin negatives, the plate may be given a bath of alkali with little developer to get strength. Such a negative is much better for subsequent enlargement. If allowed to fully develop in the tank, the result will be a very dense negative, requiring long printing time. An underexposed plate will possibly hardly have started. For all underexposed plates continued tank development is best. It will bring out all there is without danger of either chemical or physical fog; if the proper developer is being employed. Normally exposed plates will show this fact clearly by their brilliant appearance. The tank may now be covered again, and development allowed to progress to completion, examination being made at the proper intervals. The plates must be very fully developed, as they may lose much in fixing. An acid fixing bath is usually recommended, but I object to its use on principle, as it is always in a chemically unstable state, and likely to leave in the negative the seeds of future deterioration.

As to the developing agent, most of them may be and have been used, even pyro, although it is least suitable, on account of its rapid change when in contact with the air. When it is used the tank must be full and closed practically air-tight. The developer most often advocated is glycin, which in fact finds almost no other employment. It works clearly, does not lose as much in fixing as some others, and is exceptionally stable in dilute solution. Moreover, plates left in it even as long as twenty-four hours are said to be absolutely free from chemical fog.



W. NEAL WALDEN

CONVENTION PICTURE

I have personally used glycin with good results, but because I always have ortol made up for developing papers, I usually employ it for stand development and also in the kodak developing machine. For the machine I use Hauff's ortol tubes, one part of each solution and one part of water, while for the tank I add eighteen or twenty parts of water, and find development complete in two to three hours. The same developer might be used in the development of films by the new Eastman method, but I have had as yet no opportunity to try this.

For the benefit of experimenters, or those who may have partiality for other developers, I append several of the approved formulas:—

Glycin, according to Dr. A. Bogisch: 400 ccm. warm water; 5 grams sodium sulphite crystals; 75 grams sodium carbonate crystals; 5 grams glycin. After complete solution dilute with cold water to make 2500 ccm. The addition of a greater quantity of sulphite is likely to cause dichroic fog. The solution should be used at about 60° and the development is complete in from 20 to 60 minutes, according to the exposure.

Edinol, according to Englisch: 1 gram edinol; 1 gram sodium sulphite crystals; 1000 ccm. water. Add from 2 to 5 grams of dry sodium or potassium carbonate, according as over or under exposure is suspected. This developer is especially suitable for correcting errors of exposure.

Hydrochinon: 1000 ccm. water; 7.5 grams hydrochinon; 10 grams yellow prussiate of potash; 5 grams borax; 75 grams sodium carbonate crystals; 25 grams potassium carbonate. Add from 40 to 60 ccm. of this solution to 1000 ccm. water. Time of development two to three hours.

Meydenbauer's formulas: Make two standard solutions; (A) 1000 ccm. water and 200 grams sodium sulphite crystals; (B) 1000 ccm. water and 200 grams potassium carbonate. Pyrogallol: 100 ccm. solution A; 100 ccm. solution B; 8000 to 10,000 ccm. water; 2 grams dry pyro. Alum bath before fixing. Amidol: 1000 ccm. solution A; 8000 to 9000 ccm. water; 20 grams amidol. Acid fixing bath. Glycin: 125 ccm. solution A; 125 ccm. solution B; 3000 to 5000 ccm. water; 15 grams glycin. Acid fixing bath. Development may last several hours with any of these formulas, but the amount of water in the solutions for use may be varied at will to make the time convenient.

Cramer formula: 32 ounces water; 2 ounces dry sodium carbonate; 1 to 1.5 ounces dry sodium sulphite, according to color of negative desired; 30 grains ammonium bromide; 30 grains citric acid; 1 dram hydrochinon; 2 drams glycin; 2 drams metol; 4 drams pyro. Dissolve in order given. This solution must be kept in tightly corked full bottles, preferably holding the exact amount needed for one filling of the tank. For use, add one ounce of stock solution to a pint of water. The developer should be used fresh and at a temperature of 65°.

The advantages of tank development are the minimum of time necessary to spend in the dark room in poor light and often with insufficient ventilation; the uniform fine quality and even grain of the resultant negatives; the freedom from fog; and the equalizing of errors of exposure which is possible. The best attainable results are gotten from every negative with the minimum of trouble and attention.

WHAT THE MICROSCOPE SEES IN THE PRINT

C. H. CLAUDY

In the first instalment of this series, I promised to enter more fully into the details of the lenses used to get the various magnifications, before telling of the construction of photographic prints as delineated by the microscope. On the instrument I used to make the photomicrographs accompanying this series are three objectives of two inches, two thirds, and one sixth inch. This does not mean, as you might suppose, that the respective focuses of these lenses are indicated by the distance which gives the lens its name. What it does mean is that a lens of say two thirds of an inch focus, magnifies as much as a simple lens of two thirds of an inch, although the actual focus of the microscopic objective may be either greater or less. Microscopic objectives are made with a magnification equal to that given by a simple lens of one fiftieth of an inch and designated as a one fiftieth, but their actual working distance is much greater, otherwise they would be, for all practical purposes, quite useless.

The three objectives are screwed into what is called a triple nosepiece, and by simply turning this piece of apparatus around on its pivot, any one of the three lenses can be brought into alignment with the tube. The upper end of the tube receives the eyepiece, which is usually designated by an arbitrary number, as number two, or by the number of diameters it will magnify (much the more sensible method), as x 8. There are three in the outfit used to make these photomicrographs, and thus I could get, at will, nine combinations, producing, with the same draw of the camera, nine different magnifications. The length of draw in photomicroscopy is as important, as to size of image, as it is in pin-hole photography, although the limit is restricted with any one combination, as too large an image circle is very hard to focus.

Beneath the stage is an instrument called an Abbe condenser (from its inventor), which



THEODORE EITEL

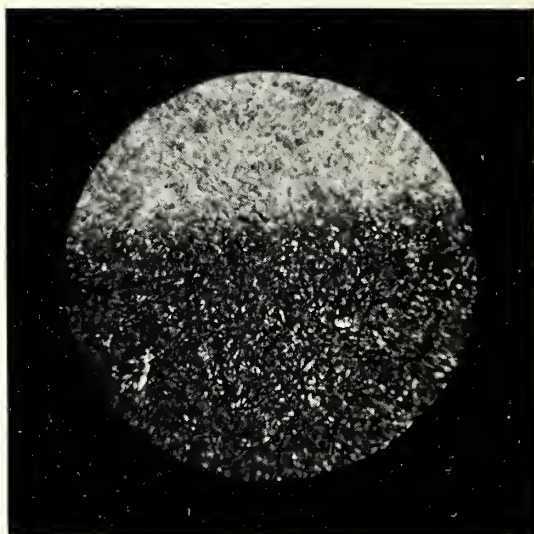
LANDSCAPE STUDY

throws a powerful beam of light through the object into the microscopic objective. This condenser is fitted with a means for stopping out the central portion of the cone light it throws and projecting slanting beams of light from all round the central, dark stop. The result is that the beams of light play on the object, but miss the microscopic objective, and the object is seen as illuminated by reflected light against a black background. This was the method used in making the crystalline photomicrographs which will illustrate the third and concluding story of this series.

In taking up prints, it was natural that I should start to look at a piece of solio. Solio is common, always to be found, and interesting to a great many people. So from a solio print of a landscape, in which appeared a tree with a sign reading, "Positively no-gunning," I cut a small part of the sign, and with a magnification of twenty diameters, — four hundred times, — secured by using the two inch objective, the x 12 eyepiece and without the Abbe, but with a stand condenser, four-inch draw and three-minute exposure by reflected light, I secured the accompanying illustration. If the reproduction at all does the original justice, I am sure you will wonder at the perfection of detail shown by this paper. There are, to be sure, a few sundry dark spots (which I take to be oxidized free silver grains on the surface of the paper), and the outline of the letters is soft and rounded. But at such a magnification, to see no irregularities, no hills and valleys of paper shreds, no difficult-to-discern boundary between high light and shadow, is a surprise! No wonder solio (or any glossy p. o. p.) gets all the detail out of the negative and that the rest of the papers, good as they are in other respects, fail in that one particular, to some extent. Just to show you how great the destroying effect is of a thick coat



SOLIO ENLARGED 20 DIAMETERS



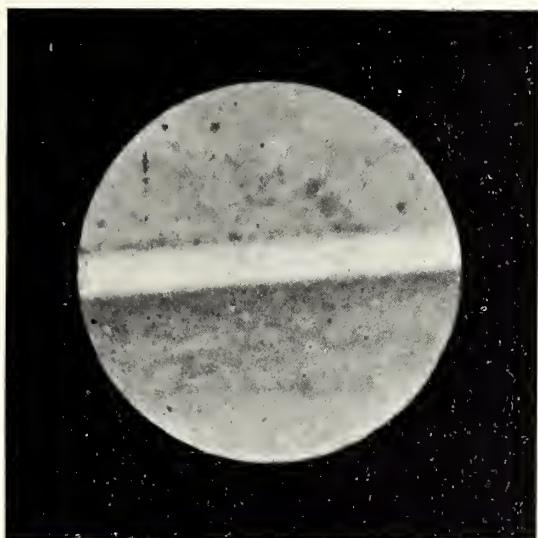
OILED SOLIO ENLARGED 30 DIAMETERS

of gelatine squeegeed on a ferrotype plate, I oiled a bit of solio, so that the paper and emulsion should be transparent, and photomicrographed the thus prepared specimen.

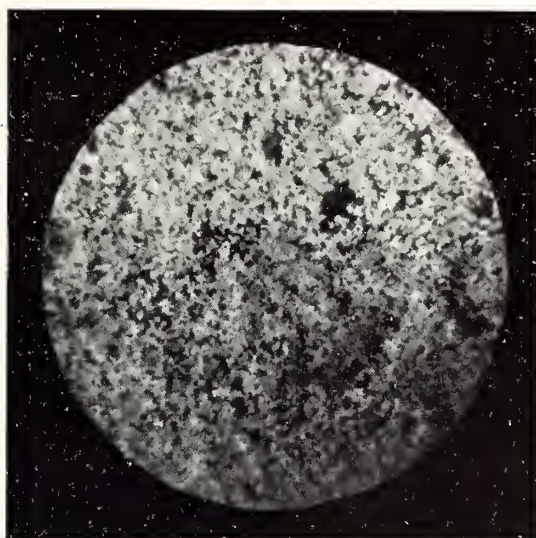
The magnification is here thirty diameters. The same combination of objective and eyepiece was used, but the Abbe condenser was swung in below the stage and a longer draw, producing a larger image circle, was used. It is hardly credible that this and the first photomicrograph were produced from the same object. Yet such is the case. The oil has the effect of breaking up the opacity of the paper and letting a strong light through. The resulting picture is the effect of shadows, or rather the image is caused by the obstruction to the beam of light, by the texture of the paper, which of course casts sharply defined shadows, in intensity varying with the texture of the paper. This is the texture which we would get in all photographs coated on such stock were it not that the emulsion hides part of it. In solio or silver printing, the squeegeeing hides the rest, for the pressure (both human and atmospheric) exerted on the paper to press it into contact with the smooth surface of the prepared plate, effectually forces the emulsion, soft with water, to be squeezed up into itself and against the hard plate, so that the top is one uniform, smooth, unhilly surface.

Now the thicker the coating of such a paper, other things being equal, the thicker will be the gloss, and the thicker this is, the smoother it will be. Consequently, although you may squeegee, say, portrait velox until you are tired, you will never produce such a gloss as you will get on solio. The emulsion is not thick enough. Now engravers will tell you that they prefer brown, glossy surface prints, from which to make half-tones, to all the black and white prints in the world. The reason lies, not in the color of the prints, but in the fact that the brown, glossy prints are always p. o. p. squeegee prints, and that the process of squeegeeing so effectually destroys the grain of the paper that the engraver can make almost as clean a plate from photographing it as he could from photographing the original. The color of the print, beyond the fact that it cannot be blue, has very little to do with the quality of the reproduction. Between a highly glossy velox print and a highly glossy brown solio, there would be no choice, by an engraver who uses his wits unless, indeed, one paper could have obtained more detail,—by which is meant half-tone,—from the negative than the other.

I am sure you are curious to know what velox looks like under the microscope. Well, it is rather disappointing, but it does not look like anything in particular when it is photographed, although it is interesting enough to the eye. Here is a photomicrograph of the edge of a stair,



PORTRAIT VELOX ENLARGED 25 DIAMETERS



EASTMAN SEPIA ENLARGED 25 DIAMETERS

printed in velox, made with a magnification of twenty-five diameters or six hundred and fifty times. It is much rougher than the solio and shows more spotting, due, I believe, to various impurities and foreign matter, but it is wonderfully smooth for all that. Close inspection of the original, however, will show some paper grains, which is what the engravers object to in asking for prints for reproductions. However, special portrait velox (which is the kind I used in this picture) has less grain than any of the other velox family (glossy excepted) and is usually used when sending prints to engravers for making half-tones. And in spite of the little grain that does show, your engraver, if he be honest, will admit that for most purposes he can make as good a half-tone from velox as from solio. Sometimes, if the negative is thin, a better piece of copy can be made from velox than p. o. p.,—but I am trespassing on the confines of another subject.

You will naturally want to know, when I speak of solio as smooth and portrait velox as having little grain, with what I am comparing them. If you will look at the last photomicrograph, you will see what is meant by a coarse, rough paper.

This is a photomicrograph, at twenty-five diameters, of Eastman's sepia paper, now so popular for enlarged heads and sketchy work. You will at once notice the mass of matted, hair-like filaments, which twine and intertwine like a morass of marsh grass. The chemicals which coat this paper sink into it on exposure and development, which is plainly seen in the microscope. They stain the paper for some depth and are not, like velox or other emulsion papers, retained in a comparatively flat layer. For this reason, which also applies to platinum, the paper has a "depth," as it is called, very pleasing to the eye. Really, this depth is an effect of light and shadow. The most minute object which can be seen casts a shadow. We are accustomed to think of a surface composed of minute objects, as smooth and shadowless, but such is not the case. The sands on the seashore, for instance, during a morning or afternoon when the sun is shining, have a velvety look, due to the multitude of little shadows, cast by the top grains of sand. You can't actually see the shadows, but every one knows how different in texture sand looks in sunlight and in shade. Platinum paper has its image composed of tiny particles of metallic platinum. These particles all cast little shadows, when viewed in the right light, and give a "pile" to the paper. Eastman's sepia paper has a "pile," too, but it is not a pile of metallic particles, but of a very rough paper, which is stained or dyed with the chemicals which form the image. One reason this paper looks so much more brilliant when wet



THEODORE EITEL

LANDSCAPE STUDY

than when dry (although I presume there are others, such as the effect of water on the chemical constituents of the image) is that water swells the paper and makes each individual fiber larger and taller and so produces more of the "pile" or velvety appearance.

I should have liked to have taken a photomicrograph of a piece of paper, any kind, at a very high magnification, showing the grains of metal in the film as I showed the grains of silver in the negative. But such photomicrography requires the services of a special illuminating device. The picture must be made by reflected light; otherwise, I should just show more paper grain, as in the oiled solio print, and this special apparatus I have not access to. I can tell you, however, that the silver grains in a velox print look very similar to those in the photomicrograph of the rabbit edge of the plate, shown last month. All the slower papers have less reduced silver in their images than the faster papers and their emulsions are not so thick. The silver seems to be, as nearly as I can make out, for the difference between the support and the lighting, in about the same state of fineness and of the same color and character.

Next month, in the concluding paper of this series, I am to show you a few of the things the microscope sees in the dark room and will present some photomicrographs of crystals and endeavor to give you a physical reason for a chemical fact with which you are all well acquainted.



GERHARDT SISTERS
AMERICAN BEAUTY

THE PASSING OF THE SUMMER GIRL

AGNES LOCKHART HUGHES

I know a lane where the brier rose
 Leans o'er the old stone wall
 And the scented blooms from an apple-tree
 Like tinted sea-shells fall.
 There's a turnstile, too, 'twixt the winding lane
 And the meadow starred with white —
 Sweet daisies that the lady moon
 Spilled from her boat one night.
 Here the cornflower opens her wide blue eyes,
 And poppies flirt with the sun;
 While all of the grasses are sparkling with gems
 That fairies from dewdrops have spun.
 Ah! Yes, there's a brook; it ripples and smiles
 Past banks where the blue gentian peeps,
 But the song that it croons to the violet, I ween,
 She safe in her little heart keeps.
 Aye! This is the lane that memory paints,
 Where love's fairest blossom, grew;
 For down by the turnstile I met a maid
 With eyes like the cornflower's blue.
 Her cheeks were flushed with the pink of the rose,
 Her lips wore the poppies' red,
 And sunbeams were playing at hide and seek
 With the curls on her golden head.
 Lightly she tripped through the meadow gate,
 While the soft zephyrs kissed her brow;
 Then she laughed, and her laugh was the song of
 the brook —
 Methinks I can hear it now!
 But, alas, for the passing of summer's dream!
 We met and we parted, for aye —
 Now lonely I walk here, in memory's lane,
 While she rides on the world's highway!

EDITORIAL DEPARTMENT

TRUST AND REASON

I would not always reason. The straight path
Wearies us with its never varying lines
And we grow melancholy. I would make
Reason my guide, but she should sometimes sit
Patiently by the wayside, while I traced
The mazes of the pleasant wilderness
Around me. She should be my counselor,
But not my tyrant. For the spirit needs
Impulses from a deeper source than hers.
And there are motives in the mind of man
That she must look upon with awe.

— WILLIAM CULLEN BRYANT.

It is, indeed, true that the spirit needs, as the poet says,

“Impulses from a deeper source than reason.
And there are motives in the mind of man,
That she must look upon with awe.”

The average photographer, endowed with the gift of picture making, imagines himself a genius capable of producing masterpieces. He feels no sense of limitation, because his soul is so wrapped up in the vision of the picture before him, that no thought of the weakness of his own hand has yet come to him. But soon there reaches out an invisible hand, and then he realizes that he can go no farther. He can make his picture just so good—but alas! no better. Try as he will, he cannot shake off the fetters that bind him to mediocrity. Reason cannot help him. Only an appeal to the “impulses from a deeper source than reason” can furnish him with inspiration. Then it is he learns that the power to create, with the touch of genius, what he sees and feels, can come only from those

“Motives in the mind of man
That reason looks upon with awe.”

BENVENUTO CELLINI

It is related that Benvenuto Cellini once designed a chalice, which he made of gold and silver, fit for the religious uses it should fulfil. And as he worked upon it and his love and skill grew with the work, he carved into it whole companies of angels and enriched it with every precious device until, like a flower, it became a thing of perfect beauty, and will ever be a matchless gift to the world. Yet to-day, four hundred years later, it is possible to define the laws of use and beauty that enabled the artist to create this masterpiece. There was first the law of proportion; by which the bowl, lip, and handle of this wonderful cup remained in the same relative scale with each other. Secondly, the law of symmetry which dictated its beauty of outline and proportion. Thirdly, the material out of which it was constructed and which suggested uses and methods of structure. Fourthly, the color, ornaments, and design were all elements of beauty as planned in harmonious relation with the purposes the cup was intended to serve. Add to this the skill, fidelity, and love of the artist, and with these guiding principles we have a combination that brings infinite beauty in any creation whether it be a silver cup, a marble statue, a painting, or a photograph.

THE PICTURES AT THE BOSTON CONVENTION

It may be safely asserted that the convention of the Photographers' Association of America, held at Boston, August 8, 9, 10, and 11, was, all things considered, the grandest ever held in the history of that organization. While everything moved with clock-like regularity and passed off exactly as planned, there were some features which for excellence and results achieved belong in the realm of perfection. It is to be sincerely regretted that such high praise cannot be accorded the usual display of pictures, especially because nearly every professional photographer of note in this country was represented. Not a few of these were seen at their best, while others appeared less advantageously than on previous occasions. There was also an uncommonly large amount of work that bordered on the commonplace, conveying the impression that professional portraiture had made no advance and that the valuable lessons taught during the past year had not been productive. This notion gained strength when one observed everywhere evidences of excessive retouching, by which otherwise admirable portraits were seriously impaired. Strangely enough, this artistic shortcoming was particularly noticeable in the work of well-known practitioners who seriously consider themselves artists. We were, further, much disturbed in observing the rage for striking backgrounds or, rather, the lack of judgment shown in their use. Some workers seem to have an absolute mania for resorting to the time-worn cloud effect, and it matters little whether the model is depicted sitting in a room, in the woods, or at the sea-shore. We firmly believe in the use of artificial backgrounds — they are indispensable for studio work. We have always advocated fitness, harmony and subordination in this respect. Most of the exhibits showed commendable taste in framing, but there were many instances of the utmost ignorance on this subject. In several cases dark sepia prints of generous dimensions were enclosed in wide, flat frames of a light brown hue, producing an effect ludicrous in the extreme. Gold frames were used indiscriminately and with disastrous results. Gold, in its various shades, is suitable for pictures of two or more colors, but, as a rule, does not harmonize with a monochrome, in whatever single tone that monochrome is printed. There is so much valuable and up-to-date literature on all topics relating to our art, that there is really no excuse for the existence of the drawbacks we have noted. One regrets that such things have not already been relegated to the past, and yet, if they were barred from our conventions, where, in our opinion, only the most favorable aspects of our art should be presented, the question of fair play would be raised by the malcontents. Personally we are not inclined to regard the disappointing character of the art-side of the recent Convention as a symptom of retrogression; far from it. To be sure we have labored incessantly and, we may say, successfully, in maintaining a high artistic standard among the craft, and are constantly striving to improve the same, so far as lies in our power. It is, perhaps, that we expected too much, and because the results were not on a par with our hopes, we were correspondingly disappointed. As we have already stated, the picture exhibit contained much that was praiseworthy and fully up to the latest demands along artistic lines. Certain prominent workers from the West, from some inexplicable cause, contributed sparingly of their productions, but their offerings gave proof of the powerful individuality for which their work is conspicuous. A portrait of Carl Gustav Waldeck by J. C. Strauss evinces the vitalizing energy and breadth of treatment which are the keynote of this artist's genius. The picture sums up the principles of art, and no analysis as to composition and chiaroscuro is necessary. Its very simplicity and directness of appeal tells the whole story. There is no mystery, no vagueness or attempt at evasion. The management of the scheme is healthy, virile, therefore natural and convincing. S. H. Lifshy was in his best vein, unconventional, yet pleasing in pose and lighting — a strongly marked individuality. A head of an old man by E. Goldensky was one of the gems of the entire collection and won much deserved applause. A. T. Proctor showed in a large number of prints sterling artistic qualities that entitle him to occupy a high place among the chosen few of the craft. His portrait of a stout, smooth-faced man seated in a chair may be ranked as one of the best achievements of American photographic art. James Woodworth Parker's portrait of

a blond-haired boy in a light suit stood out among the rest of his admirable collection by reason of its original pose and other strong traits, and easily held the attention of numerous admirers. Charles Wesley Hearn, the president-elect of the national body, was worthily represented by his "Dominican Monk," which was reproduced in the PHOTO ERA for August. The obvious merits of this masterpiece contributed not a little towards the personal popularity of its author. Frank R. Barrows, one of the proprietors of the Brookline Art Union, surprised his many friends with an exhibit, showing that the onerous duties of treasurer of the P. A. of A., which he discharges with rare judgment and fidelity, do not in the least impede the expression of his highly artistic temperament. Among those who have made rapid and genuine progress during the last few years are F. A. Frizzell of this city and Edward Fowler of Evanston, Illinois, whose artistic aspirations are justified by uncommon intellectual and technical ability. To the list of exhibitors whose work was relieved against a background of mediocrity, we must add the names of I. Benjamin, B. J. Falk (studio portraits in natural colors), Knafl Brothers, Koshiba, George Van Norman, W. Neal Walden, Moses & Son, C. C. Pike, J. W. Porter, William Manahan, Jr., and the Boston contingent, John Garo, Henry Havelock Pierce, Morris Burke Parkinson, J. Evanoff, George H. Hastings. Among the few foreign contributors R. Duehrkoop easily carried off the honors.

ART STUDY FOR PHOTOGRAPHERS

George Bernard Shaw says: "Your Royal Academician thinks he can get the style of Giotto without Giotto's beliefs, and correct his perspective into the bargain. Your man of letters thinks he can get Bunyan's or Shake-speare's style without Bunyan's conviction or Shake-speare's apprehension, especially if he takes care not to split his infinitives. And so with your Doctors of music, who, with their collections of discords duly prepared and resolved or retarded or anticipated in the manner of the great composers, think they can learn the art of Palestrina from Cherubini's treatise. All this academic art is worse than the trade in sham antique furniture; for the man who sells me an oaken chest which he swears was made in the thirteenth century, though as a matter of fact he made it himself only yesterday, at least does not pretend that there are any modern ideas in it; whereas your academic copier of fossils offers them to you as the last outpouring of the human spirit, and, worst of all, kidnaps young people as pupils and persuades them that his limitations are rules, his observances dexterities, his timidities good taste, and his emptinesses purities. And when he declares that art should not be didactic, all the people who have nothing to teach and all the people who don't want to learn agree with him emphatically."

These crystalline statements of the great Irish dramatist are respectfully referred to the attention of the sapient editor of *The Photographer*, who foolishly insists that it is a waste of time to study and listen to Art talks at a photographic convention. The absurdity of his position is well explained by the last sentence in George Bernard Shaw's quotation given above. "And when he declares that art should not be didactic, all the people who have nothing to teach and all the people who don't want to learn agree with him emphatically."

There are two points of view, we maintain, from which one may be interested in Art in Photography. One considers primarily the esthetic value of a print in itself; the other contemplates the mental and moral status, the culture and refinement of the individual photographer himself. Ruskin and Morris, perhaps the two greatest art critics of modern times, both maintain that to get esthetic results uniformly, one must have the ethical conditions in the artist. In other words, that art cannot grow and thrive unless its roots are in fertile soil and its leaves spread in invigorating air. The editor of *The Photographer* represents the arid soil in which photographic art is sometimes struggling to thrive. But the very fact that there is a stir in the photographic art world and a general spirit of unrest or striving for better things gives us hope for the future. In spite of the attitude of *The Photographer*, we still believe in art study for the photographer.

THE ROUND ROBIN GUILD

Conducted by Elizabeth Flint Wade. Specially designed for the amateur photographer and the beginner. Membership may be obtained by sending name and address to the PHOTO ERA.

"To-morrow, didst thou say? TO-MORROW?
It is a period nowhere to be found
In all the hoary registers of Time."

We all know this to be true, yet we continually say, "To-morrow we will do this or that!" and, "when to-morrow comes, we answer still to-morrow."

The National Historic Picture Guild has stopped saying "To-morrow!" Its motto is "To-day!" and to-day we shall carry to glad fruition all the hopes which have so long inspired the members of this important association.

You would like to know something about this Guild? Ah, you are newcomers into our ranks, and as such should immediately come in touch with our work along this important line.

The National Historic Picture Guild is engaged in the work of making a pictorial record of the historical places, etc., of the nation, for the purpose of preserving to posterity as complete a pictorial record of our country as possible.

The privilege of membership is extended—without fee—to every person interested in preserving in pictorial form the historic landmarks of America.

The complete collection will be stored in the Smithsonian Institution at Washington, the director, Mr. S. P. Langley, having accepted the charge and expressed his interest in seeing the work completed. The headquarters for conducting the work is in Boston, and the PHOTO ERA is the official organ of the Guild.

To carry on this work to a successful finish the Guild depends on the assistance of amateur photographers in every part of the Union, and any amateur who can make a good negative and is in a position to make one of historic interest is invited to join the Guild and contribute his mite to what will make a very important whole.

All pictures are forwarded to Boston, where they are verified, classified, and made ready for the completed collection. All questions in regard to the work will be answered from headquarters at Boston, care of PHOTO ERA.

The interest and service of some of our best photographers, both professional and amateur, have been enlisted in the work, and we have already a notable collection of prints.

The Guild was instrumental in the saving of the Paul Revere house in Boston, thus preserving the real as well as the pictorial semblance of this most interesting landmark.

Patriotic societies are actively engaged in preserving, as far as possible, all historic relics, and of marking with tablets such places as have been the scenes of historic deeds, but of which all visible traces are lost.

Many of these societies have expressed their deep interest in the work carried on by the Guild, and have signified their willingness to assist the work in any way practicable.

If you are not already a member of the Guild, join now before it is too late to be associated with a work which is to be the pride of the members when completed.

Do not delay in sending in your application for membership, and designate what particular locality you will be able to picture for the collection. You cannot unite with a more important body, nor one with more ambitious and higher aims.

RETOUCHING PLATINOTYPE PRINTS

AMONG the prints sent to the monthly competitions of the Round Robin Guild perhaps two thirds are made on platinotype paper. Many of these platinotype prints have been worked on either with brush or pencil, or in photographic parlance, have been retouched. In some cases the work has been done very skilfully, and in others so crudely as to disfigure, rather than to improve, the print.

When a print may be improved by retouching there is no reason why it should not be done, and there is also no reason why the amateur cannot learn to do it artistically and skilfully.

The texture of platinotype paper is admirably adapted for brush work. The mediums used are lampblack and Payne's gray for the black and white prints, and lampblack and warm sepia for the sepia prints, using Windsor and Newton's moist water colors.

One must know just how much color to take in the brush and what depth of color to use, and the beginner should practice on spoiled prints before attempting work on a good print. The paper absorbs moisture quickly and greedily, and once in the paper it is not easy to remove. In applying color always keep a brush in clean water so that if too deep a color has been put on it may be washed off at once with the clean brush charged with water.

In retouching black and white pictures mix on the palette or on a china plate three or four different shades or tones of gray, also one or two of

Payne's gray. The light tones are to be used on high lights and on white draperies and the deeper colors in the shadows.

The first thing to do to a print is to block out all the spots. Take a little color on the brush of the shade which corresponds with the surroundings, the deep for the shadows and the lighter shades for the lighter portions, and touch the spot directly in the center with the color. It will spread to the edges but will not overrun them, being held back by the chemicals in the paper. Let each spot dry before touching it again. If the tone is not quite deep enough, repeat the process till the spots have been brought up to the right tone.

Oftentimes black spots will be found in the texture of the paper. Where these occur in the heavy shadows it is well to let them remain, as they are scarcely noticeable; but when they are found in the lighter portions of the print, they must be removed. To do this, take a slender penknife, very sharp at the point, and inserting it under the speck, take it out of the paper. Do not try to scrape it out, simply lift it out on the point of the knife as if you were removing a sliver. Retouch the places and the blemish disappears.

In portraits the dress must be in such subdued tones that no high light or spot of light distracts the eye from the face. If the gown is white, the shadows will probably need deepening and the high lights toned down. To do the latter, take a rather wide brush, half an inch wide, dip it in a diluted mixture of the color and wash it quickly and evenly over the paper, letting it cover shadow as well as light, thus avoiding any demarcation. If one wash is not sufficient, wait until dry and apply a second in the same manner. Jet trimmings or ornaments that have caught the high lights must be carefully toned down. In portraits of gentlemen the high polish on collars and cuffs make them very conspicuous objects. These must be washed over carefully, toning the strong high lights until they do not obtrude themselves on the notice.

The background may need some retouching, or it may need deepening in color. In this case take a large brush heavily charged with color and wash over the background in broad washes, using immediately a brush dipped in clear water to smooth and even the color. A second wash may be applied when the first is dry, should a still deeper tone be desired.

Strong high lights on the hair must be toned down; and if the subject has gray hair,—which photographs always lighter than it really is,—a wash of color over the hair will give it the tone nearest approaching the tone of the hair in the original. The high lights on cheek, forehead, and nose must be subdued if they come out too strong in the print.

In regard to the eyes, unless one understands drawing it is well not to meddle with them. The

shadows may be strengthened a little, but one must be very careful in touching the brush to this part of the portrait; for, unless well done, one is apt to destroy the whole expression of the face.

Landscapes are much easier for the beginner to work on than are portraits. The same care must be taken in matching the color of the print and in applying the washes. Most landscape prints require, and are vastly improved by, a little skilful retouching.

For sepia prints, use warm sepia mixed with enough lampblack to match the color of the print. Mix enough to finish one print. To match, take some of the color in the brush and put it on the margin of the print. Let it dry, and one can see at once if he has mixed the right color.

Make a study of lights and shadows, learn to use your brush, and you will have no difficulty in finishing your platinotypes in a very artistic manner.

PLAIN PAPER

IN the search for an artistic printing medium one is apt to overlook the inexpensive plain paper on which may be made most beautiful prints, rivaling, if not equaling, the more expensive papers.

The term "plain paper," as used in this article, means paper which has not been sized, and a paper which is free from chemicals which would affect the sensitizing solution. Such papers may be found in Rives' photographic paper, in Whatman's drawing paper, in Michallet paper, Ingres paper, and other high-class drawing and water-color papers. All these papers come in several grades of finish, from the smooth to the heavy rough, so that there is a wide range of choice as to a suitably finished paper for any style of negative. They also come in soft tints or tones which still further widen their scope.

The paper is first salted and then sensitized with a plain solution of nitrate of silver. One may do the salting one's self or have it done at the dealer's, the latter being perhaps the simplest way. For those who wish to salt their own paper the following directions are given: Make up a bath of water 30 oz. in which has been dissolved 30 grains of gelatine. If the paper is very porous, double the quantity of gelatine. To hasten the dissolving of the gelatine use hot water. When cool add $\frac{1}{2}$ oz. of common salt. Use a large porcelain tray for the salting process and float the paper on the bath till well saturated, then drain and pin up to dry. Salted paper will keep for a long time, but it always works better if used when freshly salted.

The sensitizing solution is made of 240 grains of nitrate of silver, 4 oz. of water, and 60 grains of citric acid. The sensitizing of the paper may be done with a brush or by floating on the solution, the latter way giving better results, unless one is very skilful in brush manipulation. Mark one

side of the paper lightly with pencil so that when sensitized and dried the right side may be easily distinguished.

Float the paper, one sheet at a time, face downward on the bath for about three minutes, drain and pin up by the corners to dry, of course drying in a dark room.

This is a printing-out paper and the printing should be only a little deeper than that required in the finished print. Prints should be toned immediately after being made, in order to secure the best results.

The prints may be toned in any bath suitable for silver prints, either the combined or the separate bath, but the prints which really give the most satisfaction are those in "Red Salts" or chloroplatinite of potassium, — reddish crystals which must be kept from the air, as they absorb moisture and quickly dissolve. It is wiser to buy these salts in small quantities or they must be kept in glass-stoppered bottles. Make up a stock solution of 15 grains of the chloroplatinite, a bottle containing this amount costing 50 cents. Dissolve in 4 oz. of water and mark "Stock Solution." Prepare the toning solution by taking 1 oz. of the stock solution, 4 oz. of water and 5 drops of nitric acid.

The bath tones quickly and the prints assume a very beautiful red-brown color, the shadows being full of detail, while the whites are soft and clear in tone. As soon as the prints have reached the desired tone, rinse in clear water and transfer to a weak bath of soda carbonate to stop the toning and preserve the color. They are then placed in a fixing bath made of 1 oz. of hypo to 10 oz. of water. They should remain in the fixing bath for ten minutes, then be washed well to remove all traces of hypo.

It is very little trouble to prepare the plain paper, and if the salting process is done for one, it lessens the labor a very appreciable amount. Once having used the plain paper the amateur will be sure to resort to it when he wishes something specially fine. Prints made on the plain paper are permanent if one takes the precaution to have them well washed from the fixing bath.

Will any of our members who try the plain papers write to the Guild and tell of their success?

ANSWERS TO CORRESPONDENTS

SARAH L. LUTHER. — Yes; all prints sent to the Round Robin Guild competitions should be mounted, and each mount should bear the name and address of the sender. Oftentimes a collection of prints is sent with only one of the mounts marked, the others being left blank. Then, unless the receiver takes the precaution to label each print, there is no means of identifying the sender, as of course the prints for the competition are all put together until the competition

closes. They are then examined, the best pictures being selected without regard to the maker, the merit alone being the guide to selection.

M. G. NORTON. — Your prints have been received and entered in the competition. If they do not win prizes, will either send criticism by mail or, as you suggest, will give it in "Answers to Correspondents."

CAROL G. — If your prints continue to tone after putting them in water, place them after fixing in a stop bath made of one ounce of salt to one half gallon of water. This will immediately check the toning. They should remain in this bath five minutes, then washed well in running water.

BERTHA E. — The yellow stains on your gaslight paper prints are probably either due to insufficient washing or fixing; to the print not being completely immersed in the developer at once, or from not moving the print when it is first put into the hypo.

FRED. F. H. — You can buy cover-glasses for lantern slides with mats and gummed binders already attached, which simplifies the finishing of the slides very materially. They are not much more expensive than the plain cover-glasses.

J. T. R. — You can reduce the overprinted platinum prints, but the process is not advised, as the chemicals usually injure the paper and destroy the permanency of the print. It is far simpler and far more satisfactory to make another print and get a correct exposure, rather than to experiment with a reducer for an overprinted picture.

DENNIS R. — To give a platinotype print the yellowish color of an old engraving, dip it while still wet into a solution of strong tea or coffee, the latter being preferred. The coffee must be very strong. Leave the print for at least ten minutes in the coffee. A one per cent solution of bichromate of potash will color the paper a yellowish brown tint which is very pleasing. Dip the print in the solution, rinse it slightly, dry in the dark, and then expose it to the light.

S. L. HENDERSON. — No; your wide-angle lens is not a proper lens for landscape work, because it renders objects in the distance much smaller in proportion than those in the foreground. A long-focus lens gives truer reproductions, and the pictorial effect is of course far superior.

HAROLD M. — The reason why metol hydrochinon developer is to be commended for landscape work specially, is because by combining the two developing agents one gets results not possible when either is used alone. Hydrochinon is a slow-working developer and does not bring out the shadows until the high lights are well out, while

metol works very quickly, bringing out the shadows directly after the high lights become visible. By combining the two one gets almost an ideal developer for landscape work. You will find formulas for metol hydrochinon developer in the PHOTO ERA for February, 1904, Round Robin Guild department.

CAROLINE W. — Try printing from the negative by placing over it during printing a sheet of ground glass or a sheet of fine tissue paper, onion skin paper being preferred. This method will improve the printing quality of your negative.

JAMES P. O. — By "stand development" is meant standing negatives on edges in a tank and filling the tank with very weak developer. By this method one may set his plates to developing and leave them for a longer or shorter period of time, according to the dilution of the developer. If very weak, one may put the plates developing at night and let them stand until morning. If on examination some of the negatives show over or under exposure, these negatives may receive further treatment according to their deficiencies. A negative correctly exposed, or nearly so, will be found to be developed ready for fixing.

NOTES AND NEWS

THE PHOTO ERA CONCERT AT JORDAN HALL

THE complimentary concert, planned and carried out exclusively by the PHOTO ERA under the special direction of Mr. Wilfred A. French of the editorial staff, and tendered the members of the Photographers' Association of America and their friends at the national convention at Boston, August 10, was unanimously declared a grand success. Given in Jordan Hall, in the New England Conservatory of Music, a beautiful auditorium consecrated to the Muses, and participated in by musicians of distinguished ability, the occasion proved to be an artistic musical treat of the highest order. As admission to this concert was only by ticket, issued at the convention hall upon personal application, the audience consisted entirely of lovers of music, who completely filled the spacious auditorium and, by their appreciation and enthusiastic expressions of approval, encouraged the artists to present their very best efforts, and this in spite of the prevailing high temperature. In making up the program, which is given here in full, it was not deemed necessary to deviate in the least from the high classical standard of the concert given under the same direction at the New England Convention of 1902, and the results speak volumes for the artistic intelligence and good taste of the ladies and gentlemen of the convention who were present. In a concert where all the artists did so well, it were invidious to single out any one for special praise. Sufficient to say that the vocalists, Mrs. Bertha Cushing Child, Miss Josephine Knight, and Mr. M. J. Dwyer were in superb voice and quite in the vein, and the instrumentalists, Miss Thompson, Miss Berry, Mr. Gorodetzky, and Mr. Kugler, were keyed up to concert pitch, all succeeding at the very start in establishing that sympathetic bond of understanding between themselves and the audience, which is so essential to an ideally artistic success.

PROGRAM

PART ONE

- POLONAISE, E major.....*C. M. von Weber*
Miss Edith Thompson
- Air from "SAMSON AND DELILAH".....*Saint-Saëns*
Mrs. Bertha Cushing Child
- ANDACHT (Devotion).....*William Lyman Johnson*
Mr. Samuel Gorodetzky, Miss Annie Berry
and Mr. Walter Kugler
- (a) BECAUSE.....*Guy d'Hardelot*
(b) THE SWEETEST FLOWER.....*Lieber*
Mr. M. J. Dwyer
- (a) OUVRE TES YEUX BLEUS.....*Massenet*
(b) LA BELLE DU ROI.....*Augusta Holmes*
Miss Josephine Knight

PART TWO

- LIEBESTRAUM, A flat.....*Liszt*
Miss Edith Thompson
- (a) FAIRY LULLABY.....*Mrs. H. H. A. Beach*
(b) JUNE.....*Mrs. H. H. A. Beach*
Miss Josephine Knight
- IRISH FOLK SONGS —
(a) An Irish Lullaby
(b) An Irish Love Song
Mr. M. J. Dwyer
- (a) HYMNE À EROS.....*Augusta Holmes*
(b) NOEL D'IRLANDE.....*Augusta Holmes*
Mrs. Bertha Cushing Child
- REVERIE.....*Vieuxtemps*
ELFENTANZ.....*Pöpper*
Mr. Samuel Gorodetzky
- Quartet from "RIGOLETTO".....*Verdi*
Miss Knight, Mrs. Child, Mr. Dwyer
and Mr. DeAndria
- AMERICA. "My Country, 'tis of Thee".....
.....*Arthur Edward Johnstone*
Miss Knight, Mrs. Child, Mr. Dwyer,
Mr. DeAndria, and the audience

NOTES AND NEWS

TO THE MEMBERS OF THE PHOTO-SECESSION:—

The Council of the Photo-Secession had planned to hold, in the city of New York, early next spring, an exhibition consisting of the very best that has been accomplished in pictorial photography throughout the world, from the time of Hill, the father of pictorial photography, up to date. Many of the prints had been selected for this purpose, but owing to the impossibility of securing at any price adequate gallery accommodations during the desirable New York season, this exhibition must be deferred.

The Photo-Secession, for the present thus unable to hold the proposed big exhibition, has determined to present in detail some of the work which had already been selected and which would have been embraced therein, and for that purpose has leased rooms at 291 Fifth Avenue, New York City, where will be shown continuous fortnightly exhibitions of from thirty to forty prints each. These small, but very select, shows will consist not only of American pictures never before publicly shown in any city in this country, but also of Austrian, German, British, French, and Belgian photographs, as well as such other art productions, other than photographic, as the Council of the Photo-Secession can from time to time secure.

It is planned to make these rooms headquarters for all Secessionists, and to open them to the public generally without charge, upon presentation of a visiting card. The exhibitions will commence about November 1, All Saints Day, with a collection of work by Secessionists, to which all Members, Fellows, and Associates are invited and urged to contribute. The plan of decoration of the rooms is such that it is deemed in the interests of harmony to show the prints under large sheets of glass and you are requested to forward your pictures, unframed, to George F. Of, 3 East 28th St., New York City, charges prepaid. You are assured that at least one of your pictures will be hung, and as many more as the Exhibition Committee may select and as our wall space can accommodate. All prints must be delivered before Oct. 20, 1905.

An effort will be made to show the photographs in a manner worthy of Secession methods and generally to make the rooms as attractive as possible to all art lovers, who will find there, besides the exhibitions, art magazines and publications, foreign and American. The Exhibition Committee will undertake to negotiate sales in behalf of the owners of the pictures exhibited, charging a commission thereon of 15 per cent for the benefit of the Photo-Secession treasury.

As the members can well be able to imagine, this undertaking entails numerous running expenses, and the Council requests the many delinquents to forward their annual dues to the Director at once.

The Council relies upon each and every member to cooperate in the work of the Secession, not only by contributing prints, dues, and labor, but by trying to interest his friends in our work and the cause for which we stand. These exhibitions will not be in any sense local, but are intended to appeal to all pictorialists and art lovers, "without regard to race, color, or previous condition of servitude."

ALFRED STIEGLITZ.

Most people celebrate birthday anniversaries by receiving gifts; to the generous is reserved the privilege to celebrate by bestowing them. Mr. J. J. Bausch, senior member of the Bausch & Lomb Optical Company, recently celebrated his 75th birthday by giving each of 1200 employees an extra week's pay. This generous act on the part of Mr. Bausch, although a personal matter, is one of a series that marks the liberal and progressive policy of the company, which has resulted in the most cordial relations between the firm and its employees. We wish Mr. Bausch many more happy birthdays.

THE remarkable success attending the use of Di Nunzio platinum paper for exhibition prints is attracting considerable attention just at present in photographic circles.

At the recent Boston Convention of the Photographers' Association of America many of the most striking pictures in sepia were on this justly celebrated paper. The qualities of softness of tone, of brilliancy and color so essential for a successful print are invariably found where this paper is used.

Among the Convention pictures reproduced in this issue, the best portraits are on Joe's paper and we extend our congratulations to Mr. Di Nunzio because his success is well deserved. It is largely due to his persistent pluck and energy in maintaining a high standard in his product in spite of all competition. Honesty, intelligence and fair dealing is his motto, and it wins every time, as he has successfully demonstrated.

AMONG the newer additions to the photographic supply trade in Boston, is the new store of Percival Carmichael at 13½ Bromfield Street, succeeding the old firm of Henry D. Noyes & Co., dealers in high-class stationery goods. Mr. Carmichael is one of the younger generation of business men, but is full of energy and enterprise. He will carry a full line of high-grade cameras and the most complete assortment of Goerz lenses and shutters ever shown in New England. He will also carry a full stock of Lumière plates and a varied assortment of photographic films and papers. Our readers can be assured of prompt and courteous treatment in all their dealings with Mr. Carmichael, and all customers looking for photographic advice and information will be gladly received.

NOTES AND NEWS

THE C. P. Goerz Optical Works, 52 Union Square, New York City, announce a catalogue cover competition, for which \$300 in cash prizes is offered. The winning picture will receive \$150 in cash, the first prize, and will be used as a cover design for the new Goerz catalogue. The inducement of \$300 in prizes ought to secure the participation of good workers in this competition, while the smaller prizes, eight in all, may prove attractive to those who have some diffidence as to their ability to compete for the first prize. Mr. Alphonse Mucha, Alfred Stieglitz, and Joseph T. Keiley have been secured as judges.

The names of Messrs. Stieglitz and Keiley are too well known to all those interested in pictorial photography to need further introduction. Mr. Alphonse Mucha, though his name may not be so familiar to many of our photographic friends in this country, is a painter of universal reputation, recipient of several foreign orders, and for many years Director of the celebrated French Art School bearing his name. Mr. Mucha is to-day one of the recognized leaders in modern decorative art and poster designing.

As the competition closes October 31, those who desire to compete should send for the conditions at once.

IN mentioning the lens manufacturers, in our September issue, who exhibited at the recent convention in Boston, we omitted to speak of the fine display of Zeiss lenses shown by E. B. Meyrowitz of New York. This firm also made a feature of the Compound Shutter, one of the best and most compact pneumatic shutters on the market.

IT is with regret that we inform our readers of the death of Mr. Wm. J. Hazenstab, Sunday, August 20, at his home in St. Louis. Mr. Hazenstab has been identified with photographic interests practically his entire life, and except for a few short intervals, has been connected with the H. A. Hyatt Supply Co. since 1874. He was well known and respected, and will be greatly missed by his many personal friends.

MR. J. EDWARD GREENE, formerly of Boston, Mass., is now established in Pasadena, Cal., having rented the entire second floor of the new Platt-Pyle Block for photographic purposes. We sincerely hope that the refined and striking individuality of his portraits, so much admired in the Hub, will find ready and permanent appreciation in his new sphere of activity.

THE Photographic Section of the Academy of Science and Art of Pittsburg held its first annual exhibition September 15 to 23. That the publicity given to this exhibition was widespread is evi-

denced by the fact that Wilfred de Sain, Bey, Chief Private Photographer to H. I. M., the Sultan of Turkey, having seen the announcement in the PHOTO ERA, sent three photographs to be hung. Although it was announced that entries would be limited to workers living within one hundred miles of Pittsburg, the three photographs were exhibited complimentary to the Bey, and to do him justice they compared very favorably with the other work on the walls; this, notwithstanding the fact that the standard set by the leading workers was so high that we may in future look to the annual exhibition of this society as one of the art events of the year. The pictorial side of photography predominated in this collection of pictures, and, with but a few exceptions, the exhibits were notable in every respect.

DEUTSCHE KUNST UND DEKORATION (German Art and Decoration). An illustrated monthly devoted to modern painting, sculpture, architecture, also art in the home, the crafts and industrial arts. Published in folio form by Alexander Koch, Darmstadt, Germany.

This publication, which has no exact equivalent in this country or abroad, would seem to cover the artistic needs of a cultivated community, and for this reason cannot fail to be welcome in the home or the studio of every person of taste and culture. It appeals alike to the artist, the student, the amateur and the layman. Its up-to-date articles on the fine arts, the industrial arts, including decoration of every kind, in the workshop or at home, together with its numerous intelligently selected and admirably executed photographic illustrations, evincing pronounced and refined taste, constitute a publication of uncommon attractiveness. The fine arts, especially all kinds of artistic decoration, are always treated with skill, dignity and comprehension. *Deutsche Kunst und Dekoration* for August is almost entirely devoted to the furnishing and decoration of the home, with seventy large half-tone illustrations of the display of furnished apartments which is a conspicuous feature of the vast department store of A. Wertheim in Berlin. The foremost architects, designers and decorators of the German Empire have collaborated in furnishing complete models in actual size of every apartment of an entire residence, each scheme being complete to the minutest detail, and the results are a revelation of originality of design, harmony and taste. To persons who are interested in the beautifying of the home and long for fresh ideas along these lines, we commend this interesting German monthly. The illustrations are so distinct and complete that a knowledge of the German language will not be found indispensable.

PHOTO ERA

THE AMERICAN JOURNAL OF PHOTOGRAPHY

VOL. XV

NOVEMBER, 1905

No. 5

PUBLISHED AND COPYRIGHTED BY PHOTO ERA PUBLISHING COMPANY, 170 SUMMER STREET, BOSTON, MASSACHUSETTS
Entered at Post Office, Boston, as second-class matter

Editor: THOMAS HARRISON CUMMINGS

Associate Editors: WILFRED A. FRENCH, A. M., PHIL M. RILEY, HERBERT W. TAYLOR

Contributions relating to photography in any and all of its branches will receive our careful consideration. While not accepting responsibility for unsolicited contributions, we will endeavor to return them if not available, provided return postage is enclosed.

SUBSCRIPTION RATES

The annual subscription in the United States, Canada, and Mexico, | Subscription in other countries in the Postal Union \$3.50
is \$2.50. Single copies, 25 cents each | Always payable in advance

ADVERTISING RATES ON APPLICATION

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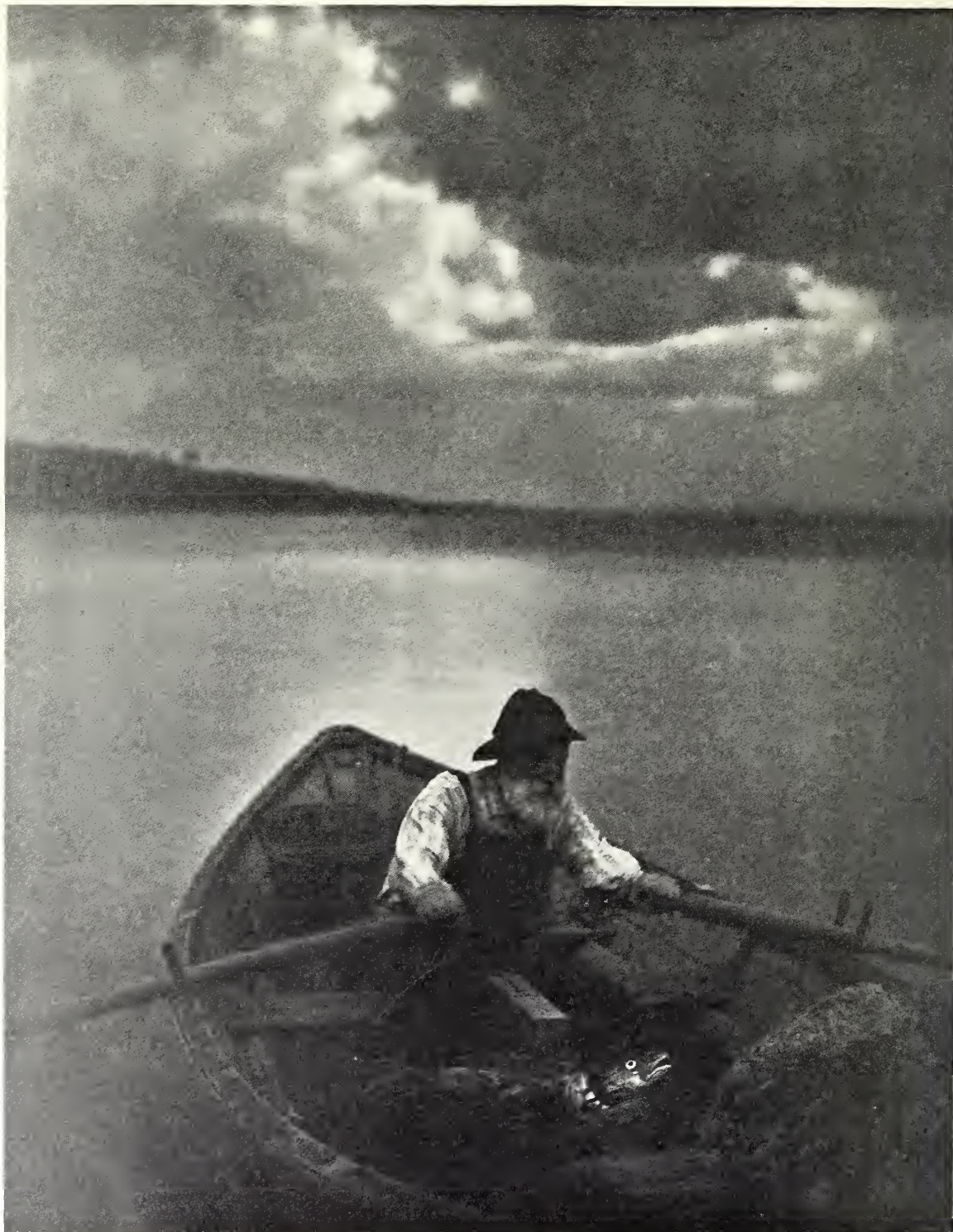
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F. H. THOMPSON
A TOILER OF THE SEA



PHOTO ERA

The American Journal of Photography

VOL. XV

NOVEMBER, 1905

NUMBER 5



THE PORTLAND, ME., CAMERA CLUB

(An Appreciation)

THOMAS HARRISON CUMMINGS

"But each for the joy of the working, and each in his separate star,
Shall paint the thing as he sees it, for the God of things as they are."
—KIPLING.

Art in any form, to those who love the true and the beautiful, is always pleasing and acceptable. The more photography is exploited as a medium for art expression, the more enjoyable and valuable it becomes. The work of the Portland, Me., Camera Club that we reproduce in this issue, in nearly every instance, is what may be styled good photography accompanied by artistic knowledge and feeling. And if the first requisite of a painter is that he should know his medium and that his painting should be good, so we may say of the photographer, his first duty is to produce good photographs, retaining, where he can, all the grace, beauty and breadth of his picture without losing definition, outline and the impression, at least, of form and color. This group of pictures, distinctly representative of this type of photograph, has been developed among us during the past two years by the Salon Club of America, and the American Federation movement of which the Portland, Me., Camera Club forms an important part. It will be readily recalled that this Salon Club comprised an earnest body of younger workers who started an active and virile protest in the United States two years ago, against the monopolistic methods of the Photo Secession; that its first exhibition was held last year in New York with great success, and that the preparations for the second Salon are now well under way. These men insist that while a picture may gain in value by having the subordinate and uninteresting parts indistinct, nevertheless, that form should never be entirely lost, and that a charming subject ought to be given with, at least, clearness. This constitutes perhaps the chief point at issue between the Photo Secessionists and the followers of the New Movement.

The pictures of Messrs. Thompson, Peterson, Dearborn, Gerhardt, Both, Phillips and Wish, reproduced with this article, illustrate these principles and can be a lesson to those

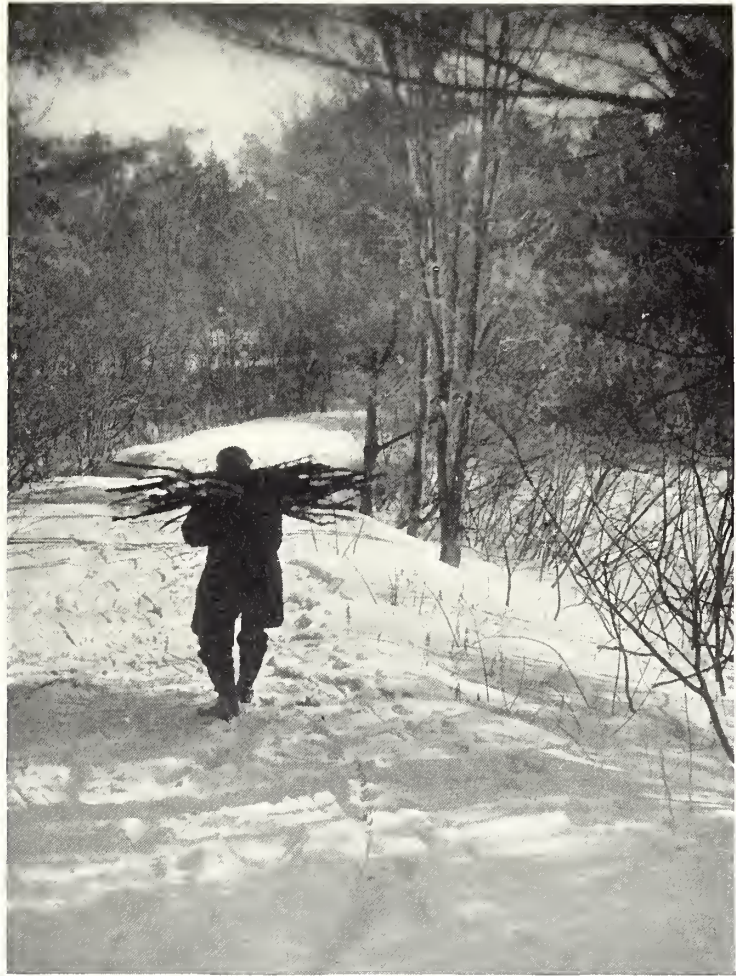


C. W. DEARBORN

THE PATH

who think that woolly clouds, foggy trees, faint, dusty landscapes, and out-of-focus portraits are the only ideals in landscape and artistic portraiture. To leave out detail is oftentimes excellent, but to substitute fog, blur and smudge is scarcely idyllic, to say the least. It is the old struggle between realism and romanticism for art expression—as old as the history of art itself. But the art of the future, it has been said, “will not be wholly romantic, nor wholly realistic, nor wholly individualistic,” but will combine all these traits, and thus appeal to our curiosity, our pleasure of recognition and the sympathy apparently existing between ourselves and the artist’s personality. This mingling of realism and romanticism in art will constitute one of the chief aims of photographic and other artists, in the years to come.

Without individualizing, there are certain general traits that seem to characterize these pictures of the Portland Camera Club that are well worth pointing out here. First, they all start out with a definite purpose in view, never forgetting that each picture should tell its own story. Secondly, as already stated, they aim at producing everything in the simplest and broadest manner possible; *e.g.*, is an open-air effect desired, an evening or late afternoon lighting will usually be chosen, on account of the greater breadth of effect that can be had at that time. Thirdly, special attention is given, in almost every case, to rightly placing the principal point of interest and its lighting in these pictures. Fourthly, the composition is well thought out, always keeping



O. P. T. WISH

A STORY FROM LIFE

the *motif* of the picture well intact, and in the softening down and bringing together of the masses and tone values there is no sacrifice of texture in these pictures. Finally, they have sought consistently to produce not merely good photographs, but pictures as well. Their accessories have been few and simple, and their choice of subjects has been good. The fisherman in his boat, under the lowering skies, typifies a phase of life along the rockbound coast of Maine often to be met with. There is a subtle beauty in the curves of the old yawl boat and a graceful charm about the whole picture that makes it realistic and very fascinating. From an artistic standpoint, the rustic in the woods, carrying a bundle of fagots, constitutes a more picturesque subject for the camera than the statesman in his Cabinet or the king upon his throne. Note the simplicity of the objects used in composing these studies of rustic life, especially, "Mending the Break." Two men, a farm boy, a plough, horses, a stubble field, and a background of early spring trees. Emerson says that

"All great actions have been simple,
And all great pictures are."

Peterson's "Lily Pond," Gerhardt's "Solitude," Dearborn's "Bend in the River," and Thompson's "Summer Vista" are pictures both simple and great, that fill the mind and expand the



J. R. PETERSON

THE LILY POND

soul. The two snow scenes entitled "Lengthening Shadows," by J. R. Peterson, and "Winter," by A. C. Both, are in a class all by themselves—two superb renderings of a winter landscape. It has often been said that *Art* can hardly be taught because it is the expression of a feeling or sympathy for what is grand and beautiful in nature. If one is destitute of such sympathy, the attempt to make one feel it, much less to express it, is futile, because it is like asking a blind man to see and describe the beauty of a sunset. That the feeling for nature exists in this remarkable group of men no one can doubt who sees these pictures; and that it has been cultivated and developed along right lines to a marked degree, no one will deny who studies this work with unprejudiced eyes. Yet, the love of nature alone did not produce these pictures. It was only by going to nature often and studying her in her ever changing moods that they learned not only the external beauties, but also the lessons and feelings that underlie every aspect of nature, and which only the mind of the true artist, stimulated by incessant study, can discover.

THE PRINCIPLES OF PHOTOGRAPHY BRIEFLY STATED

PHIL M. RILEY

ELEVENTH PAPER — PHOTOGRAPHING ARCHITECTURAL SUBJECTS

1. *Apparatus.* — Beginners usually do their first work with a cheap box camera and that fact makes it probable that their unsuccessful attempts in this branch of photography are due, not so much to the difficult requirements of the subject, as to the inadequacy of the apparatus used. The worker who has made any attempts of this kind whatever knows that when the camera is pointed at an ordinary house from a position sufficiently distant from it to secure a pleasing picture, the entire roof will not appear on the negative if the camera is held level, as it should be. If it is tilted upward distortion results and the vertical lines converge toward a vanishing point above the image, while if a more distant point of view is chosen the image will not be sufficiently large. This forms the chief difficulty in architectural work, and it renders the box camera entirely useless. Good views cannot be made snap-shot fashion with the camera in the hand, nor can pleasing composition be obtained with a finder alone. A good tripod is just as necessary for architectural photography as it is unnecessary in photographing streets, and a ground glass screen of very fine grain, upon which to focus and compose the picture, is indispensable. It is practically impossible to do any satisfactory work without a folding camera, or better still, a view camera having a reversible and double swing-back pivoted at the center, and a rising and falling front. The plate when ready for exposure must be parallel with the walls of the building to be photographed, or at right angles to the horizon line, which will be spoken of later. If this is not the case the vertical lines will converge upward and cause, what in this paper has already been incorrectly called, distortion. It will be wise to ascertain how the swing-back and rising front will help us and why it is that pyramid-shaped images are not really the result of distortion.

Let us suppose that a camera is set up perfectly level, as shown in Figure 1, so that the axis of the lens will be in the center of the plate and at right angles to both the surface of the plate and the wall of the building. It may be seen in the figure that the rays of light above and below the axial rays are of the same length, thus rendering the building correctly. To secure more foreground or sky the front may be lowered, or raised as it is in Figure 2. We find that this adjustment gives sufficient range for small houses, but for buildings of larger dimensions we must tilt the camera upward, as in Figure 3. The moment we do this, however, the axis of the lens is changed in its relation to the plate and the wall of the building from a right to an oblique angle, and the rays of light above the axial rays are longer than those below. Now the farther away an object is the smaller will be its image on the plate, and an object near the lens always necessitates a longer focal length than an object at a distance. A glance at the focusing scale on any camera will prove this. Let us refer to Figure 3 and see just what effect these optical laws will have upon the resulting image. The top of the building at D is farther from the lens than the bottom at E, and will require a shorter focal length at F than E does at G. Therefore that part of the image of the building at F will be smaller and will gradually increase in size as G is approached. In other words, the rays forming an image of the more distant portion of the building are more contracted than those forming an image of the nearer portion, whose rays are permitted to diverge or disperse to a greater extent. This, of course, causes the vertical lines of the building which are really parallel to have the appearance of converging to a vanishing point above the image.

Now this is not distortion, as many suppose, but absolutely correct rendering, although it does not seem so in the finished picture. Prove this fact for yourself by standing near a high building and looking upward. It will be very evident that the vertical lines appear to converge and if they could be projected, would meet somewhere in the sky. When farther from the building this is not so noticeable, but the principle is the same. We are all familiar with the convergence of the horizontal lines bounding the fronts of buildings as they recede from us and diminish in size when seen in street views. Vertical lines would appear in a similar manner when viewed by the

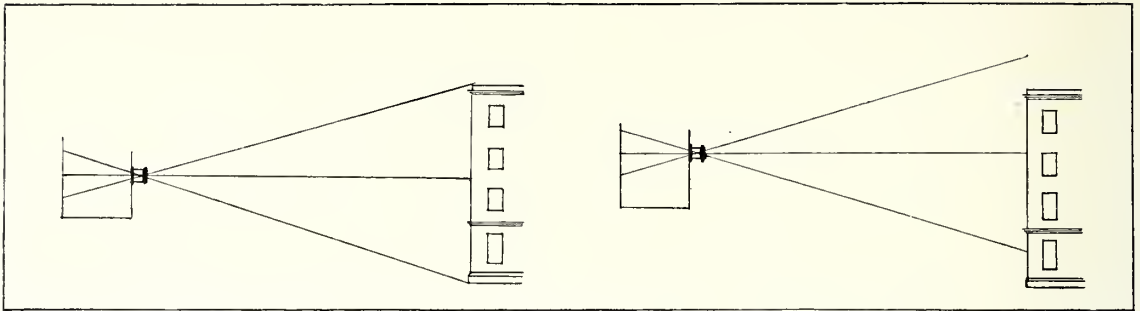


FIGURE 1

FIGURE 2

eye, but for the fact that we are taught from childhood to recognize rectangular objects, even when viewed at an oblique angle, and so we see not the image which the eye throws on the retina, but what our reason tells us is true. The camera has no brain, and as a result we get absolutely correct rendering, although it appears distorted to the eye. A swing-back is the redeeming feature, for by its use the unequal contraction and dispersion of the rays of light which have passed through the lens may be equalized so as to bring all portions of the building to a relative focus, which corrects what seems like distortion in the finished picture. In other words, by adjusting the swing-back so that the top will be nearer the lens and the bottom farther from it, as shown by the dotted line in Figure 3, the rays forming an image of the top of the building are allowed to diverge until the vertical lines are rendered parallel in the negative image.

Another difficulty confronts us in the unequal sharpness of different portions of the image when the swing-back is used. If the top is in focus the bottom will be slightly blurred, or *vice versa*. This is caused by spherical aberration, which was explained in the paper on lenses, and as a result, images are not as sharp at the edges as at the center, although this varies with the quality of the lens. Some of the anastigmats are nearly if not wholly corrected for this fault. Most lenses will not show it as long as the axial rays strike the plate at right angles, so that the picture plane of the image is nearly at the center of the plate. If, however, we wish to photograph a building, as shown in Figure 4, the picture plane is at the base of the plate and the sharpness of the image will gradually diminish toward the top of the building, which will not be on the plate at all. Here, again, the rising front comes to our aid, as in Figure 5, where the picture plane is brought much nearer the center of the plate, and better definition is secured, although it is probable that a small stop must be used. The proper adjustment of the swing-back and rising front should be thoroughly mastered by the aspirant in architectural photography, as the requirements for perfect perspective, sharpness and rectilinear lines, are very stringent.

All these difficulties in securing images as we see them make it very evident that a fine lens is quite necessary. A rapid rectilinear working at $f. 8$ is the cheapest possible equipment, and a good anastigmat working at $f. 5.6$ is greatly to be desired. Probably in no other branch of

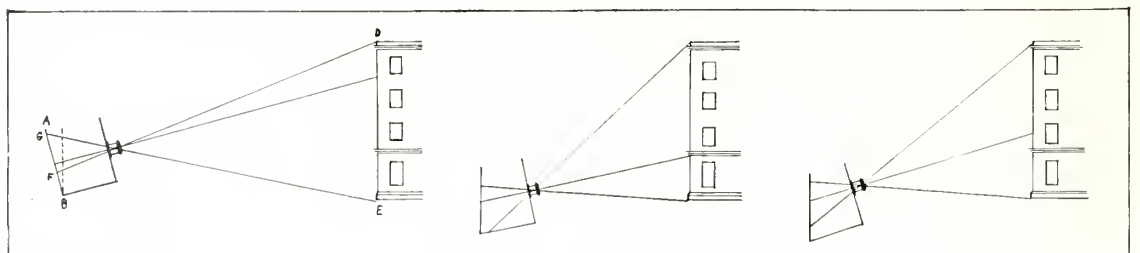


FIGURE 3

FIGURE 4

FIGURE 5



S. B. PHILLIPS

REPAIRING A BREAK

photography is its necessity made so apparent. For ordinary work it should preferably be of such a focal length that an angle of about 50 degrees will be included. In selecting a lens make sure that its circle of illumination is quite a little larger than the plate it is intended to cover with the largest stop. If this is not the case and the swing-back and rising front are used, the corners of the plate will be beyond the circle of illumination. This matter has already been explained in the paper on lenses. In narrow streets and similar places a wide angle lens embracing from 80 to 90 degrees will be required, but it should be used only in cases of extreme necessity, as its tendency is to exaggerate the perspective and produce harsh vanishing lines. Any of the ordinary pneumatic shutters giving time, bulb and instantaneous exposures from 1 to 1-100 second, such as are usually fitted to folding cameras, are equal to all requirements, if they have the usual iris diaphragms. These are very important, for the rigid demands of architectural work oblige the use of a small diaphragm to increase the definition and size of the field covered. This not only increases the exposure itself but also the latitude of exposure, so that the possibility of failure is greatly reduced. We find this fact especially helpful because very rapid exposures are seldom needed. With diaphragms we can also vary the contrast in our pictures to some extent. A small diaphragm seems to increase the depth of the shadows, giving brilliancy and contrast, while a large diaphragm gives soft effects; but the diaphragm used must always be small enough to give good definition. A small spirit level should be a part of the equipment, but do not depend upon it until you have proved that it is accurately mounted.

2. *Linear Perspective.*—In actual work composition demands our attention, and since true and pleasing perspective is the supreme requirement in architectural photography, the

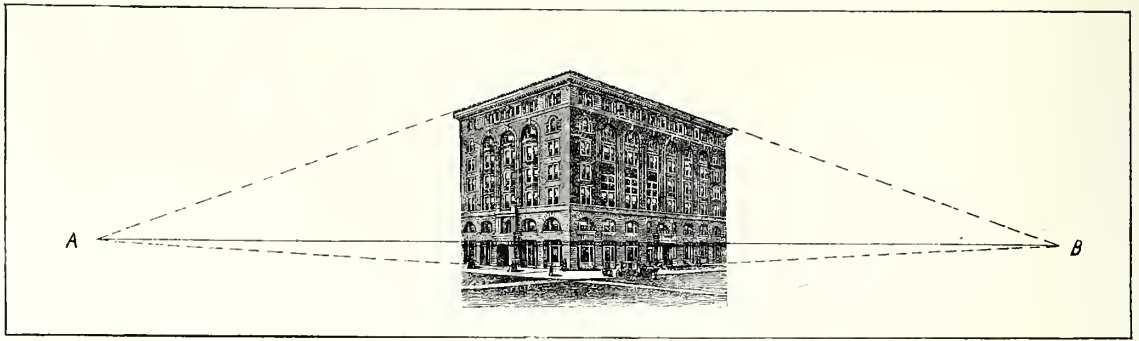


FIGURE 6

choice of a proper point of view becomes first in importance. Now perspective is of two classes: linear and aerial. Securing linear perspective may be defined as the art of so rendering an object on a plane surface that the picture of it will give exactly the same impression to the eye as the object itself, if viewed from the same point. The normal angle of vision included by the eye, about 50 degrees, will always give pleasing perspective from the right point of view; so if we keep in mind the definition just given above and use lenses of the right focal length, our work should be of a high standard in regard to composition. But we see that much of all this is dependent upon the point of view, therefore let us consider it more fully.

3. *Choosing a Point of View.*—An architect designs a building, especially if it is to stand alone in an open space, to be viewed from certain points; and the photographer should study his subject sufficiently to find these points and thus get the best possible rendering of the structure. In finding a good point of view, attention must always be given to the distance of the point from the building, the horizon, and the relation between the point and the sides of the building.

Although the eye embraces an angle of vision about 120 degrees in extent, only about 50 degrees of the central portion is distinct; and therefore for ideal work our lenses should have this angle of view, or approximately so. We may then safely set up the camera at a point from which the entire building to be photographed can be seen by the eye with fair distinctness. Little fear need be entertained that a position too remote will be chosen, for the surroundings in cities, at least, rarely permit it. Moreover, these surroundings often necessitate a point of view much closer than we could desire, and a wide angle lens becomes necessary. This should be avoided whenever possible, for a point of view too near the building always results in unpleasant, harsh vanishing lines, and if there is a wide projecting cornice a large part of the roof will be hidden and the true perspective and character of the entire edifice will be lost. Whenever possible a distance of about three times the height of the building should be made use of, and it will insure pleasing results.

Next in importance is the position of the horizon line. This is a line on a level with the eye, toward which all other lines of the building appear to converge. In Figure 6 this is represented by the line A B, to which the dotted projections of the principal perspective or vanishing lines converge. These may converge in opposite directions, as shown, or there may be but a single set of lines converging in one direction to one vanishing point, as in the case of buildings located immediately between other buildings and showing but one side. Although the angles of the vanishing lines may vary, the horizon line is always on a level with the eye of the observer, and thus it may be seen that the height of the point of view from the ground regulates the position of the horizon line, and the angles of the perspective lines as well. In Figure 6 the point of view is located so that the eye of the observer is at a position on a level with the intersection of the horizon line and the corner line of the building. If the point of view was below the building, all of the perspective lines would converge downward to an extremely low horizon, the upper lines being much more acute than the lower; or viewed from a position above the building, the lines



J. R. PETERSON

LENGTHENING SHADOWS

would converge upward to an extremely high horizon, the lower lines being much more acute than the upper. Neither of these positions are pleasing; the former having a tendency to exaggerate the height and perspective, and the latter a tendency to give a flattened and distorted appearance. Between these two extremes is the safe working ground, in which we may tend toward one extreme or the other for the sake of effect. Always locate the horizon with reference to the nature of the subject and the effect desired. The higher the building, the higher the horizon should be. For advertising purposes it is considered desirable by some to give a building the appearance of great height and size, and therefore a very low horizon is chosen, but this method should be avoided, for very little is gained by it and the results are usually more ludicrous than awe-inspiring. For the ordinary residence, the height of the observer's eye from the ground will nearly always give good perspective. Larger buildings should be taken from a higher station, as from the window of a building nearly opposite, but never midway from top to bottom, or the upper and lower perspective lines will become the same length, all corresponding angles the same size, and the picture will not be pleasing. The best effect is secured when the horizon line is lower than midway in the height. Notice a few tall buildings as you have opportunity and

you will find them as well proportioned as smaller ones, being designed much like a classic column. The lower floors, from one to four as the case may be, represent the base; the intermediate floors the shaft; and the top floors the frieze and cornice. This would indicate that the horizon line should preferably be at or a little lower than the top line of the base.

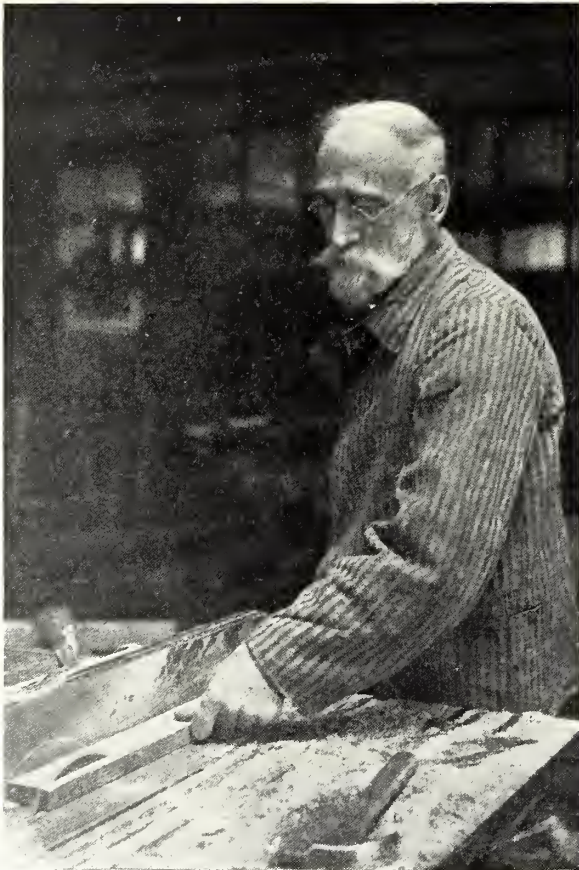
The third consideration is the relation between the point of view and the sides of the building. Never photograph from a position directly in front of a building, for there will be practically no perspective, as we ordinarily think of the term, and the horizontal lines will all appear parallel. The proper position is a little to one side, where the returns of the moldings may be seen. If two elevations of a building are to be shown, as is best when possible, do not take a position so that equal portions of the two are shown on each side of the corner line. Buildings which have two or more elevations facing on a street are almost always designed so that one side appears more prominent than the others, and is in reality the front. This side should occupy the larger portion of the picture, although care must be used that the vanishing lines of the minor side are not too abrupt. Many public buildings are studded with gables, towers, and domes, which affect the sky line, and to get a pleasing effect often requires a different point of view than would otherwise be chosen. Pleasing sky lines are very important, but so varied are the conditions found in actual work that the treatment of them must be left almost wholly to the good taste of the worker.

4. *Aerial Perspective, Light, Shade and Shadow.* — The apparent form of objects is very different from their real form, not only in respect to shape but also in respect to distinctness. These changes in distinctness are affected by distance and atmosphere and differ constantly with the varied conditions of light and weather. It is this purely artistic side of the subject which is called aerial perspective, and success in its application depends upon the individual ability of the worker. Color being such a potent and truthful portrayer of varying distances, it may be said that aerial perspective belongs more properly to the painter than to the monochrome photographer, but in photography there are color values, light and shade, and differences of focus to work with. The best photographs do possess aerial perspective, and it is secured largely by a proper choice of the time of day for making exposures, the quality of the lighting and the condition of the atmosphere or weather. Architectural views do not require and cannot possess aerial perspective in its true sense to a high degree, as do landscapes, but light and shade, however, are important, as are shadows as well, and the worker should not fail to differentiate between shade and shadow. The side of a building upon which the light of the sun falls is called the light side; another side, which the direct light of the sun does not reach, is said to be in shade; while if a tree, for instance, grew so as to be interposed between the sun and the light side of the building, it would cast its shadow on the building. In form shadows always resemble the object which prevents the passage of light, but shade does not suggest any definite form or limit, or is it usually as dark as the shadows. Architects in making designs not only draw their moldings, cornices, and ornaments with regard to good linear perspective, but they also show the way in which the light, shade, and shadows would appear in the best lighting, and many buildings that looked well on paper are far from being artistic in appearance because they have been built in localities or positions in respect to points of the compass so that the intended effects of light and shade cannot possibly be secured. Never photograph a building with the sun directly back of the camera, so that both sides of the building are equally lighted. The results are always flat and without relief — all high lights and no shadows. First of all, a time of day should be chosen when the front of the building is in light and the secondary side in shade, thus securing principality and subordination. This condition will probably last a number of hours, so watch the change in the shadows cast by any projections on the building upon the light side. Until you become experienced it will be instructive to watch these changes one day, deciding at what hour the most pleasing effect is presented, and making an exposure the next day at that hour. A few trials of this kind will train the worker so that he can tell at a glance what will or will not appear well in a photograph. At noon the shadows are very long, black and almost vertical, but the contrast between the lights and shadows gradually diminishes as evening approaches, and the shadows



F. H. THOMPSON
A SUMMER VISTA





A CRAFTSMAN

J. R. PETERSON

themselves are short and almost horizontal. This same effect is seen early in the morning. Now as a rule the best results are obtained between these extremes when the shadows are cast at an angle of about 45 degrees, but it is surprising what an improvement a longer or a shorter shadow will sometimes give. High buildings are usually improved by short shadows or a low sun; low buildings are improved by longer shadows or a higher sun.

5. *Sentiment.* — Architectural photography may be artistic as well as other branches, if a little care is given to the sentiment, or we may say the environment, which should be in harmony with the nature of the subject. Life always adds interest and variety, and photographs of residences are much improved by one or more figures, but do not get out the whole family and pose them in ludicrous fashion after the style of a group portrait. The figures should always be subordinate to the building itself, and should be in natural positions, walking or otherwise occupied, and not staring at the camera. In photographing commercial or other public buildings the introduction of life into the view is especially beneficial, and a busy scene in the street along the front of the building should always be aimed for. Have an eye for these little things and your views will improve wonderfully. Carry this idea of sentiment into the sky and if a good cloud, or other atmospheric effect, cannot be had in the same negative with the building, print in a suitable one from a special negative.

6. *Plates.* — Ordinary brands of medium rapidity are very satisfactory for the great majority of architectural views. Plates listed in Classes $1\frac{1}{4}$ and $1\frac{1}{2}$ in the exposure tables of the third paper of this series will give pleasing results for ordinary work; those in Class $1\frac{1}{4}$ being sufficiently rapid to permit of instantaneous exposures on crowded streets, provided the lens



G. E. FOGG

A CUP OF TEA

gives good definition with a large stop. If this is not the case and a small stop must be used, some of the plates listed in Class 1 may be substituted; but great care should be used to give correct exposures, as these plates do not possess the latitude of slower brands. In photographing commercial buildings, where it is desirable to include the life of the streets at close range, the plates in this class are preferable.

7. *Exposure.* — Architectural subjects usually require about the exposure for an average landscape, or perhaps a trifle more. Reference to the exposure tables of the third paper will serve as a guide, but the worker must depend to some extent upon good judgment and experience, and in getting this experience, the Normal Photometer, sold by the PHORO ERA, will be of great service.

8. *Finish.* — The best architectural negatives are full of detail, brilliant, but without harsh contrasts, and the pyro formula given in the fourth paper of this series will produce such negatives. The choice of a printing paper is largely a matter of personal preference; all are pleasing in their own especial way. "Gaslight" papers are probably best adapted to the needs of beginners because of the extreme simplicity of manipulation, the uniform results which may be obtained by timing exposures, and the many different weights, surface textures, and degrees of contrast which may be secured. Platinum paper is always excellent for architectural subjects; so also is Aristo Platino, while a glossy silver print is especially fine for reproduction purposes.



WINTER

A. C. BOTH

PHOTO ERA TOURS OF EUROPE. — THE IDEAL PORTABLE OUTFIT

When our party of twenty-two, including the participants in the PHOTO ERA Tour of Europe for Photographers, sailed from New York, we carried a varied equipment of cameras, including several styles of Folding Pocket Kodaks, a panoramic camera using 4 x 5 films, an 8 x 10 view outfit, etc. Of course, such restless spirits as ours could not endure the thought of ten days without photographing, and the battery of rapid firers got into action before the ship left the wharf, and kept it up all the way down the bay. After we had passed Sandy Hook, the developing machines came out, and soon several cabins were the scene of photographic activity. The machine was a novelty to most of us, and some had never developed a film in it; but notwithstanding this, by dinner time we had a number of perfect strips of negatives, and at breakfast the next morning we showed Velox prints of our productions, probably the first time that photographs had ever been made with such ease and speed on board ship.

Naturally the other cameras were brought into use also, but plates could not be developed in a stateroom, and although we found that the surgeon had fitted up his surgery as a dark room, and was kind enough to allow us the use of it, after developing a couple of plates in the narrow quarters at the inconvenient hours when it was possible to resort there, plate developing under these unfavorable conditions was given up as a bad job.

Meanwhile, however, the kodakers tested their focusing scales and shutter speeds, got characteristic views of ship life, wave pictures and sunsets, and developed and printed them with ease and rapidity.

Landing at Antwerp, we strolled around the old commercial city, finding interesting subjects everywhere, and easily snapping them without attracting attention. Not so with the stand cameras and the panoramic outfit. As soon as a tripod was set up, either a crowd of people with plenty of time on their hands grouped themselves in the foreground, or else the unconscious group

desired became a collection of stiff and uninteresting people posing for a photograph. The panoramic camera soon earned the sobriquet of "The Typewriter," for it had to be wound up for every exposure and regulated with a fan, and when it went off, it was with a whirr and a rattle like a church clock, which drew the attention of every one within a block.

We traveled through Belgium up to Paris, and the owner of the panoram learned wisdom, packed it away, and purchased a No. 3 F. P. K. de Luxe. With this he did good work throughout the trip, and although sometimes a wide-reaching sweep of sea and mountain made him sigh for the 12-inch film of the panoramic camera, he did not regret the change.

The tale of the 8 x 10 was not so short, and was productive of much vexation to the owner and of mirth to the rest of the party at times. Appreciating the burden which plates would be, the owner had brought film-holders, with the intention of using cut films. Some of these he had bought in America, but alas, in packing he had taken the wrong package, and when he started to load, he found that his bundle contained card mounts, and that the films were waiting his return to his rooms in America. So we went out to purchase cut films in Paris. It proved that only one firm in France makes them, and when we went to their Paris agency, there were none in stock of the size we wanted, or larger. By sending a long telegram to the factory (at our expense) we were able to get the promise of the delivery of ten dozen on the day we were to leave Paris. We got them, but when the owner started to load, he discovered that the maker had cut them 8 x 10 in Paris inches, and they were so small that they would not stay in the holders. It was too late to do anything about changing, so we went on to Berne, and there the plate-holders were given to a mechanic to change over. He promised them for that evening, but they did not arrive, and as we left in the morning before he opened his shop, we left them there. We kept the telegraph and telephone wires hot, but the package was always a little too late to catch us, and the camera remained unused. At last in desperation the owner shipped the whole outfit to London, and left directions for the film-holders to go there too, when they arrived. Having thus gotten rid of several cubic feet of baggage, he traveled more easily, and henceforth relied also on a 3 A F. P. K., for which we got films without difficulty. The total result of carrying an 8 x 10 camera five thousand miles was two negatives and a large amount of experience.

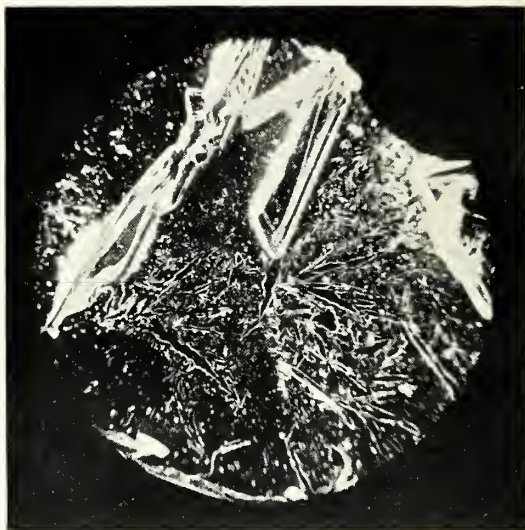
During the rest of trip in Italy, Greece, and Turkey, F. P. K.'s were the only cameras we used, and we got thousands of good negatives, all developed with the developing machine. This never failed us under any conditions. We developed films in Milan with the thermometer at 95°, and the air saturated with water vapor after a thunderstorm. The conditions were so bad that the gelatine melted under our fingers wherever we touched it, but we developed, fixed, washed, and dried seven films without using alum. Not one frilled, and we did not lose an exposure. We developed films in water thick with dirt and iron rust, or so hard that it precipitated voluminously when the developer was mixed; we developed on the same film exposures made on the Italian lakes at noon and at seven P. M. with the I speed, as well as others made indoors with at least five times too much exposure, and outside under the blazing Grecian sun at midday. All gave perfect prints, although the printing time was, of course, protracted for the overexposures.

One of the greatest advantages was that we were able to develop almost on the spot, and many times were able to decide definitely that we had made a satisfactory picture of a place that we might never see again, or had an opportunity to take it over again if we had failed, as was the case in the Acropolis Museum at Athens, where we all gave far too long exposure, although working with an actinometer.

We are enthusiastic over the simplifications which have recently been introduced into photography, as well as the educational opportunities offered to photographers by European travel. We expect to lead another PHOTO ERA party abroad next summer, visiting the art centers of Europe, and some of the most picturesque regions of the world, but we shall most earnestly advise every one who goes to carry, as the ideal outfit for travelers, an F. P. K., a developing machine and N. C. films.



PYRO CRYSTALS ENLARGED 40 DIAMETERS



FERRICYANIDE CRYSTALS ENLARGED 40 DIAMETERS

WHAT THE MICROSCOPE SEES IN THE DARK ROOM

C. H. CLAUDY

A comprehensive title, this, and one which I cannot write up to in the space allowed me. In fact, were I to try to tell all that the microscope could show in any dark room, I am afraid I would be writing and you reading until we neither of us had further use for knowledge. But a few of the more interesting and, to photographers, more pertinent things in the dark room, which take on a new aspect when seen under the wonder-showing tube, I will try to tell you about.

In my last paper I promised a physical hypothesis for a chemical fact. Yet I do not know but what I should have said a new physical hypothesis for a physical fact. For is any one yet able to say that the act of dissolving any substance is an act purely chemical or purely physical? For instance, we know that a physical change can take place without chemical action, or the generation of heat. When you pick up a stone and move it a few feet from its first location, the matter in the stone has undergone a change which is purely physical, — that of location. It is still the same stone, unchanged in composition, and its temperature has not altered. If you could throw that stone hard enough, however, against a wall, you would make it red hot, because arrested motion dissipates in heat. Now, however, the stone would have sustained a physical and a chemical change, since the red heat would affect its composition to some extent. If you could treat this stone with certain acids, you would see it gradually disappear, which act would also be accompanied with heat. No chemical change can take place without a change of temperature of some kind; consequently, when any action results in heat, which we know is not due to a physical cause, as arrested motion, we surmise a chemical change. Now if an ounce of water be poured over a dram of concentrated sulphuric acid — a somewhat dangerous thing to do, by the way — there is an immediate result in heat; the solution gets hot, the containing glass gets hot, and the whole thing may give off steam. Yet the most delicate chemical tests show only sulphuric acid and water. There has been a chemical change, which left things just as they were, as far as we can see. The direct opposite is found in dissolving hypo in water. The solution gets cold. Heat leaves the solution. It gradually warms up again to the temperature of the atmosphere and hypo and water are the constituents of the solution, yet we have every right to assume, from the change of temperature, a chemical change.



CHROME HYPO BATH ENLARGED 40 DIAMETERS



HYPO CRYSTALS ENLARGED 40 DIAMETERS

Every user of pyro has observed the erratic way in which it acts when it is dissolved. If it is added to the concentrated soda and then water poured in, it changes color slightly, then back again to clear liquid. If it is put in a glass and water poured over it, it frequently changes to a bright red, and back again immediately. Chemical change, evidently, yet pyro remains in the solution, as we can find out by developing a plate.

What I am endeavoring to show is that in stating the reason why pyro dissolves so readily to be a physical one, I am not taking into account the possible chemical reasons. Some say the act of solvation is purely physical, a matter of the molecules of the substance dissolved slipping in between the molecules of the liquid. Others say solvation is a distinct chemical change, and some have said that every substance which can be dissolved possesses two distinct compositions, one in the solid state and one when dissolved. Be that as it may, I think I can show you, with the accompanying photomicrograph, why pyro dissolves so quickly. You have all noticed that when, in an eight-ounce graduate of water, or water and soda, you drop, say, ten grains of pyro, that the white powder, although it sinks swiftly, rarely reaches the bottom of the glass. This property of quick dissolving is of the greatest benefit to the photographer, saving not only vexation, but time—and time, when a chemical oxidizes in ten minutes so as to be practically useless, is valuable.

If you will look at the photomicrograph of the pyro grains, you will see that they are composed of long, slender needles. In the original photograph (I cannot tell whether it will reproduce well) is a delicate tracery of other long needles, much smaller than the principal objects in the photograph, which, if in their turn are magnified greatly, reveal the presence of still another set of smaller and still more delicate needles. In other words, pyro crystallizes in extremely small, long crystals, offering the maximum of surface with the minimum of bulk for the water to attack and dissolve. Even if pyro crystals be mashed together, there are still innumerable spaces left for the water to penetrate, and, inasmuch as the surface of the pyro is so great, compared with its bulk, the water can act much more quickly than it can on such a chemical as hypo, for instance, which has large, flat crystals of irregular shape. I wish it were possible to explain, by use of the microscope, why hypo produces cold, but that is a problem as unsolvable by such means as to say why a man has a fever by looking at the thermometer.

There are few sights prettier to witness than the act of crystallization under the microscope. In making the subject for the pyro photograph I took an extremely minute quantity, such as

I could pick up with the point of a pin, and laid it upon a slide of glass. On top of this I put an equally tiny drop of water, also with the point of the pin. I then arranged the light so that by means of the dark stop already referred to in this series, I could see what there was to see, as a light illuminated body, against a black ground. Watching closely a field of black, suddenly I saw a bright, white needle appear, literally out of darkness. This needle grew slowly across the field, and everywhere it went it put forth branches, much as a tree does, and these branches in their turn branched, until the whole field was full of growing needles. Moving the slide until I came to the edge of the area of evaporating solution, I watched the conclusion of the experiment. Two separate groups of needles rushed towards each other, in different directions, and met in the center, each one sending forth tiny crystal branches, like the bayonets of two opposing armies. The bayonets met, crossed each other, and were still, and the experiment, apparently, was over. But on applying a higher power, I could see the delicate, fern-like tracery still forming beneath the mass of the crystals, as the last remaining bits of moisture were taken up by the all-greedy air.

In the case of the ferricyanide crystals this experiment had the additional charm of color, beautiful reds and browns resulting from the play of the light through different thicknesses of the crystals. But the forms lacked the regularity and beauty of the pyro, and after all, were much coarser and less attractive.

The experiment of watching the contents of a chrome hypo alum bath evaporate and leave its crystals was the most interesting of the lot. The bath consisted of hypo, chrome alum, sulphite of soda, sulphuric acid, water, and the multitudinous products of fixation. In the evaporation, one set of crystals appeared by itself,—the one set which required the most water to dissolve it. This was followed by the next set, of another color, which in turn laid over the entire field, and then in great rapidity, by several other sets, impossible to count as separate layers. I cannot account for the marked regularity of direction of the crystallization, unless it is caused by the first set of crystals having that regularity and all the rest clinging to it and crystallizing about them. If you dip a string into concentrated sugar and water, rock candy results, the sugar crystallizing about the string. Doubtless you have wondered why rock candy has always a thread through it. Well, in this case, I think the first set of crystals acted as the threads for the rest of the solution, and caused the rest of the crystalline formation to preserve, in some measure, the regularity of the first layer. This is only a theory, but it is the best I can think of to fit the facts.

I had an interesting lesson recently in the practical application of the microscope to photography. An acquaintance of mine was troubled with dark spots and streaks in his negatives. Only one or two in every dozen plates showed these markings, but they appeared regularly, no matter whether he used his usual brand of plates or not. I suspected that this irregularity of one or two plates to the dozen must mean the plate-holder, but the most painstaking search and dusting failed to show any cause. Finally, on careful inspection of one of the marked plates under a glass, I was struck with the similarity of these marks to the formation of crystals. We put a drop of water on the inside of each of his plate-holders, allowed it to remain five minutes, sucked it up with a pipette, put it on a glass slide, and allowed it to evaporate. Out of twelve we found two slides which showed unmistakable crystals, although neither of us were expert enough to recognize the variety.

Next came the investigation. My friend has a small sister. The small sister innocently confessed that, wanting to play store, and not having anything nice for small cupboards, she used an empty plate-holder in which to keep her groceries! Among the groceries she "sold" that day was soda. I considered the mystery solved, but could not make out, in my own mind, why traces in the plate-holder were not visible to the eye. So I questioned the small maid myself. Her answer was enlightening. "Brother does not like his things played with, but I forgot. When I was through, I remembered, and so I dusted the little box out as nicely as I could, with the little soft brush which he has hanging in his room. I am sorry he didn't like it, but



C. W. DEARBORN
THE BEND IN THE RIVER





SOLITUDE

ERNEST GERHARDTS

I am sure it didn't hurt the box!" Poor baby! No, it didn't hurt the box, and we both learned something from it; but I am informed that a new lock ornaments the door of "Brother's" room, and that baby is excluded, to her great grief.

If you have access to a microscope, and are troubled with pinholes, try looking at a pinch of dust gathered from the shelf or the workbench, or, better yet, the floor. If you do not find hypo crystals, which you can recognize by looking at a slide with hypo on it, you either do little work, or are remarkably clean in your dark room labors. Whenever I get a crop of pinholes, which is not often, I cause the proper orders to be given to the household Mercury, with the result that a plentiful application of soap and hot water is made to my floor and the pinholes always stop. Of course, they may be caused by dirt in the camera, and that is the first place to look, but failing that, chemicals in the air, from shelves or floor, is the most fertile cause, as proved, both by microscopic examination and the empirical proof of the stoppage of the trouble after cleanliness reigns.

In conclusion, let me say that an expensive instrument is not necessary for seeing many of the things I have spoken of, and that much pleasure can be had from a five or ten dollar instrument, both in visual observations and in photographing, as I have previously pointed out in other publications. Should any of my readers feel inclined to buy such an instrument, I shall be most happy to lay what small knowledge and experience I possess very much at their service.



OUR ILLUSTRATIONS

EVAIRE H. CUMMINGS

It is gratifying to us to have the opportunity of presenting to our readers this month a representative collection of work of members of the Portland Camera Club, one of the most flourishing organizations of its kind in this country. It will be interesting to note the results of several years of work by a body of amateurs under practically the same stimulus and incentives, for it is reasonable to suppose that most of the artists represented have heard and taken part in the same discussions and have profited by the same instruction. In many cases the reasons of success are the same — careful posing, effective lighting, and successful composition. We will try to point out some of the more important good features in the pictures selected for reproduction this month.

For the frontispiece we have chosen what is perhaps the strongest picture of the collection. The lighting and composition are equally effective. Note how the figure in the foreground is made the center of interest by its position in the picture, by concentrating the reflected sunlight just back of it and by the leading lines of the dory. The artist has carefully avoided the risk of dividing the picture space into three equal portions by shaping the parts so widely different. A pleasing and effective variation is found in the suggestion of land on the left horizon. The atmospheric rendering is excellent and the scale of values well chosen. We would suggest, however, that the fish in the foreground might be subdued a little in tone to lessen its obtrusiveness and help the picture.

"The Lily Pond," by J. R. Peterson, is a unique foreground study. The interest is centered on the single lily resting upon the water near the bottom of the print. From this point the eye is carried up into the picture by a graceful curve of single lilies to the middle distance and the background beyond, which is thrown sufficiently out of focus to produce a separation of planes and the effect of distance. Here the soft gray tones of the sky claim our attention and we note how they have been repeated throughout the picture. The clump of marsh grass rising in the lower right hand corner successfully breaks an otherwise monotonous water level.

Although in its way just as pleasing as "The Lily Pond," "A Summer Vista," by J. H. Thompson, gains distinction in an entirely different way. Instead of the slow, graceful curve, we have the fence, the bank of the stream, the trees, and the hills of the background all leading to the mass of foliage at the head of the pond. Note how cleverly the artist has avoided the center of the picture, although keeping near enough to maintain the balance. The background retains much of its detail, while the spacing and contour of the trees break the monotony of the sky space. The balance of the light and shade is so admirably maintained as to deserve especial commendation.



S. S. SKOLFIELD

SEWING

Two excellent examples of home portraiture are found in the studies by Messrs. Skolfield and Peterson. The simplicity and naturalness of pose appeal to us, while the careful subordination of unimportant details attracts attention to the face. In both pictures the lighting is soft and pleasing and the composition wholly successful.

Another example of home portraiture is "The Colonel," by O. P. T. Wish, which has received a much different treatment from the foregoing studies, yet produces quite as happy a result. Particularly commendable qualities are the suppression of detail and the concentration of the light upon the face. The very simplicity of pose and line makes the strength of this portrait. We might, perhaps, wish that the high light on the collar was more subdued.

That Mr. Wish's talents are not confined to portraiture is shown by his successful treatment of "A Story from Life." The same simplicity and strength are here, but

the opportunity for the play of more varied talents is embraced. Note the lines leading into the picture directly to the figure — faint, but graceful curves. The choice of a point of view is a particularly happy one; the figure is well placed and the balance of light and shade admirably managed. It is an altogether charming picture, and will repay close study.

While the popular impression is that of all Nature's beauties a snow scene is the most difficult to reproduce by photographic means, we have in our collection one worth especial commendation. A. C. Both offers an example of successful treatment of a difficult subject. The gray lines which blend so happily are its chief feature. Notice that there is not a single pure white spot in the picture. The tops of the trees just appearing over the edge of the hills add a pleasing variety to the sky line, while the shadows made by the high drift on the left just complete the balance. Such detail of the snow in the foreground is rarely found, while the series of long, graceful curves, of which the picture is made, renders it an altogether charming bit of landscape.

A different treatment of a snow scene is found in "Lengthening Shadows," by J. R. Peterson. Taken in the late afternoon when most pleasing effects can be obtained as the long shadows of approaching night creep over the earth, this picture forms an excellent foreground study. The soft tones of the whole print and the subduing of the background to secondary importance aid materially in making it a successful picture.

"The Path" suggests a subject popular among amateurs and often attempted, but it is rarely that such a good composition is offered to us. The graceful curve of the path, suggesting more beauties beyond, leads us to the edge of the pond, and here again we notice that the

background is enough out of focus to suggest the idea of distance. Observe how several of the leading lines radiate from the turn in the path so as to carry the eye to that turn and invite the spectator to go beyond. This quality of mystery is often found in the best work. A fine artist exercises self-restraint and frequently suggests rather than tells his story. He recognizes the great principle that minor truths must be sacrificed to major truths; some must be omitted, for all ought not to be displayed. Among the other pleasing features of the print may be mentioned the repetition of graceful curves and the clever spacing of the trees.

"Repairing a Break," by S. B. Phillips, appeals to us all because of its perfect naturalness. Note the triangle formed by the three heads—a good example of pyramidal composition. Choosing the point of view so as to include the distant hills was a happy thought, while the detail of the foreground speaks for the technical excellence of the print.

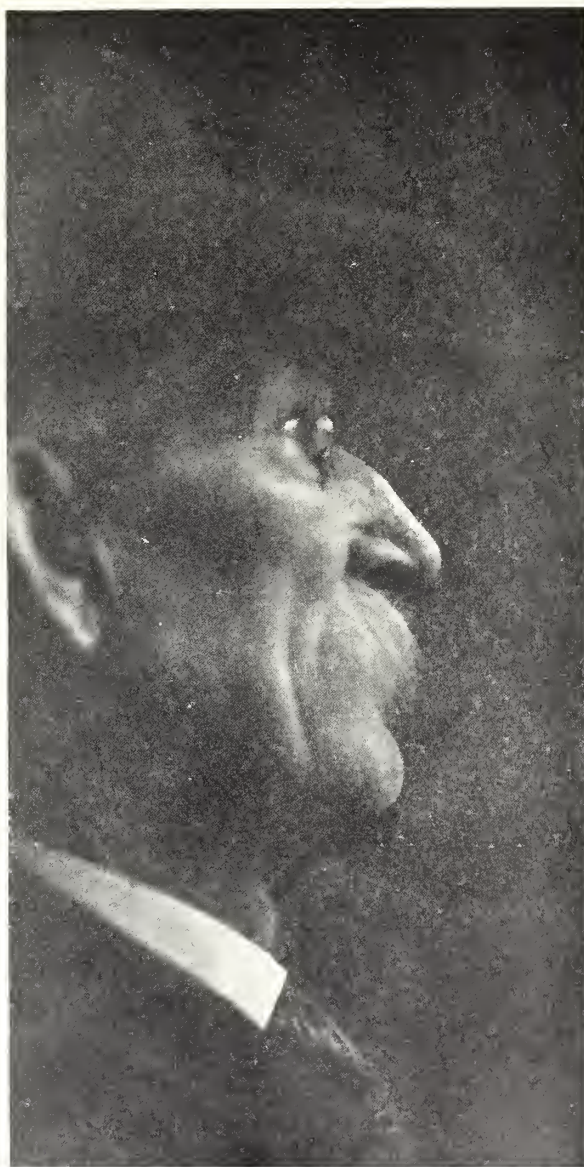
In "A Scraggly Pine," by J. H. McCorkle, we have the effect of sunlight and shadow peculiar to the woods, and although somewhat spotty in rendering, it is not at all obtrusive or unpleasant. This is probably due to its naturalness, which has been secured by preserving the excellent detail in the shadows and keeping the high lights down.

Perhaps the most successful print of the collection in harmony of tones is "The Bend of the River," by C. W.

Dearborn. The simple cloud effects, the stillness of the water, and the stillness of the landscape speak of a mid-summer afternoon on the meadows. Note the continued repetition of lines in the trees in the background and the variation of the sky line. This is a picture which one can readily get in sympathy with and appreciate fully.

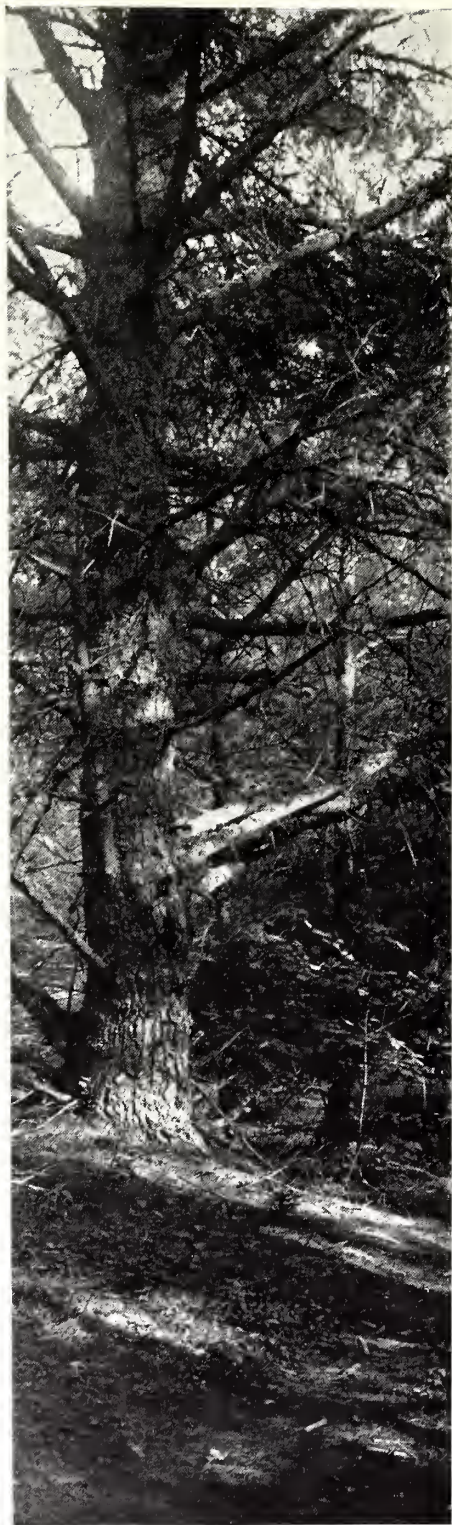
Another composition of similar character is found in "Solitude," by Ernest Gerhardt. The range of values, gradation, and softness of tone are particularly commendable, while the cloud effect is in perfect harmony with the scene.

A successful piece of work, marred only by the unfortunate choice of a background, is found in "A Cup of Tea," by G. E. Fogg. Both composition and lighting are good; the pose is simple and graceful; but the insistence of detail in the background cannot be overlooked, and it takes the attention from the figure. A subdued background in which there is no conspicuous design would do much to improve this picture.



O. P. T. WISH

THE COLONEL



A SCRAGGLY PINE
J. H. McCORKLE

THE SIGHING PINE

AGNES LOCKHART HUGHES

Lonely, a fragrant pine-tree stood,
While the wind rushed madly by;
Then he stopped in his flight, and whispered low,
"Ah, why do you grieve and sigh?
There are sunbeams dappling the forest glades,
There's a song in the rippling rill,
And the goldenrod gleams like a glittering crown
On the brow of the rugged hill.
The clovers, with little pink fists closed tight,
Are donning their winter hoods;
While maples are lighting their torches of red,
And flaunting them through the woods! "

" 'Tis true, kind wind, what you say," said the pine
"And you marvel that I should sigh;
But I once had a lover—a prince in gold,
Who came from a palace on high.
A Sunbeam, they called him, a dazzling youth.
Quite lavish of kisses, too;
So I showed him the love in my heart, one morn,
When he came through the forest to woo.
But, alas! when summer's glories had waned,
And autumn's red lips kissed
The flowers, shining like twinkling stars,
Through November's silvery mist,
He sailed o'er the rill in a jeweled boat,
With a rosy-cheeked autumn leaf;
And none but the wind and the sunbeam know
The cause of the pine-tree's grief! "

EDITORIAL DEPARTMENT

NOVEMBER

“Now goes the golden autumn far away;
Now nearer comes the winter to my door;
And thus doth nature, working evermore,
Create new life from changes and decay.”

November marks the waning of the year. Then it is that the landscape, the trees, and the water seem to sparkle and effervesce as if some rare change were taking place. The distant hills glitter, the very air seems to shine and there is such beauty in the fields and sky that it imparts new energy for out-door work with the camera. The running waters kick their silver heels, and fairly laugh and dance with brightness in the sunshine. While the November frost imparts such beauty to the sky and such a wealth of color to the woodlands, that it makes an ideal month for picture making to those who can appreciate it.

A PAINTER'S VIEW

The painters are often patronizing, and some are merciless and unfair in their appreciation of photography. But sometimes there comes a spirit whose sympathies are bigger and broader than those of his fellows. And when such a man appears on the horizon, we hail his advent with delight. In the “Reminiscences” of Sir George Frederic Watts, the great English painter, by M. T. Barrington, just published by the Macmillan Co. of London, we read the following:—

“Watts was greatly interested in the science of photography. He thought it ought to help artists considerably in seeing nature truly. He saw the photograph of a child in a shop window and bought it ‘as a lesson.’ Pointing to the beautiful arms, he said, ‘We can’t do anything like that.’ He declared they were as good as Phidias, and better—so broad, so simple, and yet suggesting such beautiful structure beneath the bloom of the surface.

“Watts was fond of music. One day he said he had just been hearing in his head combinations of instruments—‘orchestral effects.’ He went on to say he thought he ought to have been a musician instead of a painter. ‘He heard melodies and harmonies without conscious thought, whereas only one picture had ever come to him as a vision. All the rest had been built up from ideas worked out in his brain. Thought led the way and directed any artistic expression of which he was capable. The one exception had been, “Time, Death and Judgment.” That had come before his inner sight as a picture, and he had at once hastily seized his chalk and drawn the design from his vision. Those people, he contended, who were meant by nature to be painters and designers, worked mostly from the pictures revealed to their inner sight.’”
What a lesson is contained in these biographical details for the photographer of to-day!

THE DURABILITY OF THE PHOTOGRAPHIC PRINT

In view of the bewildering variety of printing papers and the required methods of manipulation existing at the present time and the high claims offered by their different advocates, the professional worker frequently finds himself embarrassed in making a choice. This difficulty is increased when he considers, as he must, the durability of the print, and he generally pins his faith to the paper that shows proof of the greatest permanence. A silver print that has undergone no visible change in two or three years does not necessarily retain its original appearance

for ten years more. By silver print we do not mean one made on albumen paper — long since practically disused — but the collodion and gelatine papers, of which the former of these two varieties has by far the larger number of devotees, at least in the United States. As every one knows, the lasting qualities of a print made upon a first-class product depend entirely upon the thoroughness of the manipulation, which implies the selection of the proper ingredients for the several solutions. The use of the combined toning and fixing bath, however convenient and time-saving, cannot be too severely condemned, where the highest degree of permanence is aimed at. Even the use of separate solutions for toning and fixing does not ensure reasonable durability of the prints. Judging from what we know of the hasty operations among professional workers and their occasional lack of conscientious effort in the interests of their patrons, we regret to state that there never was a time when so many prints, destined soon to take on autumnal coloring, are produced than to-day. When confronted by a customer who complains of faded prints, the delinquent craftsman is not slow to attribute the defect to the manufacturer, a manifest injustice. Nor is the permanent paper *par excellence*, the Platinum paper, absolutely reliable. To endow this beautiful printing medium with a permanence equal to that of an etching, the manipulator should strictly follow the directions furnished by the makers. Even the imperishable carbon print is exposed to the danger of visible change, unless its production, calling for great manipulative skill, is entrusted to thoroughly competent hands. Of course, all substance perisheth in time, and no one would think of comparing even a carbon or platinotype impression to a production in marble or bronze as regards durability. Even stone and metal images, as well as pictures whose base is of a mineral or vegetable character, undergo the mellowing process of time, *i.e.*, their pristine fresh appearance gradually yields to a subdued, warm tone, which, in many cases, is a decided improvement, viewed from an artistic standpoint. It is well known that photographs exposed to direct sunlight will fade more quickly than others of equal kind and quality; nor is the change, thus caused, the same in character as when prints remain uniformly in diffused light. Another danger menacing the life of a photographic print, especially one whose base is metallic silver, is the character or quality of the mount. The presence of certain chemical impurities in the latter, notably hyposulphite of soda — used in the process of manufacture — has long been known to be detrimental to the stability of the silver print, and aware of this fact, certain well-known manufacturers of mounts for photographers' use successfully eliminate all traces of this deleterious substance from their products.

Thus, given printing papers capable of yielding results of all reasonable permanency and every supplementary material of an equally trustworthy character, the skilful and vigilant worker is expected to provide mankind with the full scientific benefits of our beloved art.

THE PHOTO ERA EUROPEAN TOUR

It may interest all who are fond of traveling in foreign lands to know that we shall present to the readers of this magazine a series of sketches of European travel, from a photographic standpoint, by a member of our editorial staff, beginning with the January number. These will be accompanied by original photographs taken by the writer, who, favored by climatic and other conditions, succeeded in securing about three hundred excellent snap-shots of the countries through which he passed. Holland, Switzerland and the Italian Lakes are particularly well represented in this collection. It ought to please our readers to see a series of photographs of our own making, which in subject and treatment differ widely from the numerous hackneyed prints which any one may purchase here as well as abroad. It may be that, in learning of the European experiences of a member of the PHOTO ERA party, not a few of our friends will wish that they might have availed themselves of the opportunity to join our party, when it was being formed last spring. If what we promise in the way of description and illustration will, in the least, compensate any one for not having crossed the Atlantic on that occasion, we shall be more than pleased.

THE LONDON SALON

The thirteenth annual exhibition of The Photographic Salon, conducted by the members of the Linked Ring, was held at the house of the Royal Society of Painters in Water Colors, London, England, from September 15 to October 21. The number of pictures submitted this year was larger than ever before, but 30 less than last year were hung. Of the 254 exhibits by 109 exhibitors, 137 were English, while the remaining 117 were American and European. It is especially interesting to note that in spite of the oft-repeated statement that outsiders cannot easily gain admission to Salons of the Linked Ring, 71 non-members contributed 110 pictures, while 38 of the 75 members on the official list contributed the remaining 144.

That a steady advance has been made, which was continued in this exhibition, is beyond a question. In short, the thirteenth Salon, the best yet produced under the auspices of the Linked Ring, was saner and maturer than its predecessors. The character of the work this year tended less toward bizarre effects than ever before, and as a result savored less of affectation. It may be said with truth that reserved effects of tone, technical skill, and a conscientious regard for Nature commanded the appreciation of every visitor to the gallery, and that it was, all in all, a distinctive and praiseworthy exhibition.

Among the prominent English pictorialists who exhibited distinctive work were A. Horsley Hinton, Alexander Keighley, Craig Annan, Will A. Cadby, Mrs. Cadby, Eustace Calland, Archibald Cochrane, A. H. Blake, Charles Job, Reginald Craigie, and others. "In Airdale," by A. Horsley Hinton, and the poetical work of Alexander Keighley, set a standard in their respective ways that may be said to fairly represent the highest level that artistic photography has been able to reach.

The French school was strong, although it was to be regretted that many of its best workers, such as Demachy and Puyo, were represented by but few pictures. Other European workers whose exhibits stood out for especial recognition were Dr. F. V. Spitzer, Heinrich Kuhn, R. le Begue, G. Grimpel, and R. Duhrkoop, who contributed a remarkable series of portraits which were among the best things in the gallery.

The honors for the most interesting work shown this year again fell to America, and the names of Eduard Steichen, Alfred Stieglitz, Alvin Langdon Coburn, Joseph T. Keiley, Mrs. Kasebier, C. Yarnall Abbott, Clarence White, and W. P. Post were well to the fore. Nothing in the gallery was finer than the five portraits by Coburn.

HIGH PRICES FOR PHOTOGRAPHS

The news that exhibitors in the Photographic Salon, recently held in London, England, asked and received high prices for the products of their creative talent, will be hailed with delight and satisfaction by art workers throughout the world. It also emphasizes the statement, made repeatedly in these pages, that there are intelligent art patrons who prefer to be photographed rather than painted, even though the remuneration be the same in each instance; and that the professional portrait painter has no reason to complain, now that the photographer is a worthy competitor. The price affixed by Craig Annan to his photograph of Dr. Cleland, a carbon print, was moderate enough, — viz., four guineas (\$21.00). A 5 x 7 gum-portrait by Robert Demachy was sold for five guineas, equally low-priced. There were other photographs in the same collection, however, which were sold for much more, among which was a portrait of the eminent financier John Pierpont Morgan, the price of which was exactly one hundred pounds sterling. As Mr. Morgan is known to be averse to being photographed, it is highly probable that the photographic world possesses no other picture of him than the one just referred to. Among eminent American photographers whose productions in portraiture and landscape are on an artistic level with some of the finest paintings executed to-day and which have been sold for one hundred dollars or more apiece, may be mentioned Rudolph Eickemeyer, Jr., Stieglitz, Kaesebier, Strauss, Steichen, Garo, Pierce, and others.

THE ROUND ROBIN GUILD

Conducted by Elizabeth Flint Wade. Specially designed for the amateur photographer and the beginner. Membership may be obtained by sending name and address to the PHOTO ERA.



W. H. ZERBE

FIRST PRIZE—A COUNTRY ROAD

THE sunny days of summer and the mellow days of autumn have alike slipped away, and dull November, the month of short and cloudy days and long and stormy nights, is with us. No more jauntings through upland pasture and low-lying meadow; no more wanderings by twinkling brook, or loitering on sandy shore; no more golden hours in the gorgeous woods, whose leaf-strewn carpet of many hues rivals the product of Persian looms.

To the amateur, the month of November is a month of retrospect. His camera rests from its labors, and the results of the summer and autumn work claim the attention—results that are regarded with pride or with dismay, according to the use he has made of his camera. If he has

selected his subjects with care and made of them, or endeavored to make, the very best picture possible, then he has reason to be proud of his work. If, however, he has used his material with a prodigal hand and mostly without rhyme or reason, then he is dismayed at the quantity of negatives which confront him, and the thought of making prints from them is so appalling that he shudders at the mere suggestion.

I wish that every member of the Guild had been as wise in his methods as has one member whose work lies before me,—the charming result of working with a definite purpose in view. The pictures taken are of a country village, and the series begins with a picture of the distant village



H. P. DAHLEN SECOND PRIZE—A COUNTRY ROAD

taken from the railway station, and shows a cozy cluster of houses nestled among the hills. The picture itself is very pretty, the village being situated in an ideal spot, while if one wants an enlarged vision of the place a magnifying glass brings out the lesser details, for the lens was sharply focused for this very purpose. Choosing artistic points, our amateur took pictures along the road to the village, then views in the village itself.

Then she made pictures of old homes from which the boys and girls, now grown to men and women, had gone out into the world to seek their fortunes in wider fields. She sought out the haunts of youthful days, and photographed the stream where in childhood these same men and women had angled for minnows or sailed their mimic boats; the old schoolhouse where they had learned their "a-b, abs"; the grist mill with its dripping water wheel; the flume; the gnarled apple-tree which bore the early apples; nothing escaped the eye and the camera of this wise amateur.

Then a series of these pictures were printed and mounted in an artistic book made of heavy, rough paper, in a tone somewhat deeper than that used for the cover of the September number of the PHOTO ERA. The cover itself was a warm brown in still heavier paper than the leaves. Each picture was designated by a quaint title taken from book or poem. The old plank road leading to the village was entitled, "The highway to

the town." The stream had a quotation from Tennyson's "Brook."

"I chatter still o'er stony ways,
In little sharps and trebles."

The old schoolhouse answered well the descriptive verse from Whittier lettered beneath it.

"Still sits the schoolhouse by the road,
A ragged beggar sunning;
Around it still the sumach grows,
And blackberry vines are running."

Now this is what the amateur did with the book. Selecting a picture of one of the old homes referred to, she stuck it lightly on the leaf reserved for it, and under it wrote this quotation from Tom Hood:—

"I remember, I remember,
The cot where I was born,
The little window where the sun
Came peeping in at morn."

Then she forwarded the book to the man or woman whose home was represented, asking if he or she would not like to have a copy of the book, stating price, etc. The book was protected with corrugated board, and placed in a wrapper addressed to the maker, and with full return postage on it. An outside wrapper was put on, and, when the book was to be returned, all the consignee had to do was to slip it into the wrapper



G. HORLIN THIRD PRIZE—A COUNTRY ROAD



J. A. MANEY

THIRD PRIZE—WATER CRAFT

provided, seal it, and drop it into the mail. On its return, the picture of this particular home was taken out, another substituted, and the book sent on a fresh journey. The result was that this amateur has orders enough to keep her busy for all these dull November days, printing and making up books, for with one exception, each one to whom the book was sent ordered one or more books.

What suggested the idea? The amateur heard a man, who had been long years away from his native town, say that he would give anything for pictures of those places he knew when a boy. If this man was so anxious to have pictures of the loved haunts that his infancy knew, our wise amateur thought there might be others; so, though she could not make pictures for this special man, she knew of a charming country village whose absent sons and daughters would prize pictures of the scenes of their youthful days. The pictures were made, and our amateur is reaping a bountiful reward for her days of labor.

Opportunities are as plentiful as blackberries, but it is only the wise who know how to make the most of an opportunity.

Don't you remember the man who was looking for opportunities and passed two of them on the road?

Said one Opportunity to the other, —

"What a hurry he is in. He never noticed us!"

ROUND ROBIN GUILD COMPETITIONS

First prize: A yearly subscription to *Art in Photography*, value \$10.00.

Second prize: \$5.00 in photographic books or magazines, published or advertised by us, to be chosen by the winner.

Third prize: The choice of a yearly subscription to the *PHOTO ERA* or the *Practical Photographer*.

Fourth prize: One number of *Art in Photography*, value \$2.00.

SUBJECTS FOR COMPETITION

October. — "Night Pictures." Closes November 30. Any picture made at night is eligible.

November. — "Street Scenes." Closes December 31.

December. — "Decorative Pictures." Closes January 31. By decorative pictures in this particular competition is meant pictures which readily lend themselves to decorative effect in magazine making, as opposed to those of only an illustrative nature. Headings of pages or departments, the decorating of whole pages and "contents" page designs are desired. "Cover Designs" will be reserved for a special competition later. Decorative pictures need not of necessity be either landscapes or waterscapes, although good examples of their use may be found in the April *PHOTO ERA*, as well as the present issue. Flower studies

after the style so successfully made by Miss Carine Cadby of England, are especially pleasing. In fact there are photographs in almost every class of work, especially if they happen to be of a sketchy character, which could be used. We hope therefore that our readers will take especial interest in this competition and look through their negatives for attractive material.

AWARDS

THE two competitions which we report this month proved to be extremely popular, and brought so large and so fine a collection of pictures that it has been both a pleasure and a task to award the prizes. A number of the winners entered several pictures of about equal merit and the choice of an individual print became, under the circumstances, far more difficult than determining the prize winners themselves. It is our hope, however, to reproduce in a future issue several more of the prints entered in these competitions.

A COUNTRY ROAD

First prize: Wm. H. Zerbe.

Second prize: H. P. Dahlen.

Third prize: G. Horlin.

Fourth prize: Albert M. Pear.

Honorable Mention: George F. Keyes, B. F. Langland, W. B. Morrison, William Spanton, H. W. Schonewolf, C. M. Whitney, G. Wallace Williams, James A. Young.

WATER CRAFT

First prize: C. M. Whitney.

Second prize: W. H. Porterfield.

Third prize: John A. Maney.

Fourth prize: R. H. Caley.

Honorable Mention: H. F. Robinson, Chas. Vandervelde, Albert Moberg, C. R. Tucker.

ANSWERS TO CORRESPONDENTS

M. M. H. — If your trays become stained they may be cleaned with muriatic acid solution, 1 oz. of acid to 20 of water. Use a brush or swab, and do not put the hands into the solution for the work. Why not try the porcelain-lined trays? You will find these do not stain easily and are very quickly cleaned. They will bear the heat, which



C. M. WHITNEY

FIRST PRIZE—WATER CRAFT

a rubber tray will not, so you can set the tray on the stove with a little washing soda dissolved in the water with which it is filled. This will remove all stains and leave the tray as white as when new. The porcelain trays are specially good for developing papers.

BERTHA B. — Use waterproof ink for writing labels on bottles. In pasting a label on a bottle, unless you use the gummed ones, put the strip of paper entirely around the bottle and lap it. This will prevent it from becoming loose if wet.

JENNIE R. — To remove the oil spots from your photographs apply pure benzol to the place, let it remain a few seconds, then blot off with clean white blotter. Repeat the process until the grease spot disappears. To brighten the color of your blue-prints dip them in a three per cent solution of oxalic acid. There is no need of varnishing your negatives. Storing them carefully in envelopes will prevent their being scratched.

NOTES AND NEWS

THE SECOND AMERICAN SALON

REPORTS from the various centers throughout the country and abroad, where work has been submitted to the local jurors, are that the standard is very high and superior to last year's exhibit. This, together with the large entry list received, bespeaks most encouragingly of its success. The work submitted to these various centers is now *en route* to New York, and the first sitting of the jury in New York City will be November 6.

The American Federation of Photographic Societies will start the circuit in New York City in December, under the supervision of the Metropolitan Camera Club, full notice of time and place appearing in our next issue, together with complete route of exhibit after leaving New York.

WHEN the greatest reputations in the world of photography are analyzed, we find that perfection in all directions is but a popular fancy. To illustrate this it is merely necessary to point out the difference between a secessionist and an old daguerreotypist. The best men have simply the power to select the qualities they love best, the technical power to express themselves in harmony with their own feelings, and to characterize their work in such a way that their customers make no mistake as to the personality of the expression.

If there are two men who accomplish this to perfection, they are the members of the new firm, Davis & Eickemeyer, which will enter the field of photographic competition on the first of December this year. They will retain the old studio at 564 Fifth Avenue, New York, which the name Davis & Sanford has made famous, and no doubt will add new laurels to its previous accomplishments. Charles H. Davis and Rudolf Eickemeyer are essentially two men who are independent of existing fads and schools. They are believers in likeness and faithful reproduction, in fulness of modeling and exactness of detail, and at the same time bring to every impression the inspiration of the moment. They respect the individuality of their sitters and are willing to sacrifice their own in order to record the most favorable qualities of each person that enters their studio. And that, after all, in spite of volumes of eulogy in favor of extreme pictorialism, is the only kind of portrait photography that has a right to exist.

THE Providence Camera Club of Providence, R. I., is to give an "all star" exhibition of "prize winners" this month which promises to be interesting. Only the work of members of the club is eligible, and every print entered must have already received an award in some exhibition. As the organization is composed of many successful and artistic photographers, the exhibition should prove a treat not to be missed by all who can see it.

THAT the widespread popularity which Obifo, the daylight process, has enjoyed during the last year is well deserved, will be admitted by every photographer who has tried the preparation and knows that the claims of the Prindle Process Co. are actual facts. With this preparation plates or films may be loaded and developed by subdued gas or day light without the aid of a dark room or developing machine, a great convenience to everybody, especially excursionists and vacationists. It obviates fog, produces better color values, makes plates non-halation, permits of making reproductions and enlargements equal to the original in color values, and is of great service in half-tone work.

Obifo is simple and effective; it does not lengthen the time of development or increase the amount of work. The preparation is furnished in the form of a white salt readily soluble in water, thus producing a solution in which the plate or film is immersed for five or ten seconds previous to development in the usual way. While this applies to time exposures only, the procedure in the case of snap-shots is even simpler; one dram of Obifo being added to eight ounces of developer.

We have not yet had an opportunity of giving Obifo the exhaustive tests we hope to give it later, but we are convinced that with it a dark room is no longer an absolute necessity, and judging from the negatives and prints shown us by Mr. Prindle himself and others, all claims for the product may readily be realized, especially the faithful rendering of color values.

RALPH J. GOLSEN of Chicago has recently put out a new bargain list which will be found interesting reading for any one associated with photography. It is a fifty-two page pamphlet, unique in make-up, liberally illustrated, and describing the latest novelties and apparatus in an able manner.

CATHEDRALS AND CHURCHES OF THE RHINE.

Francis Miltoun. L. C. Page & Co., Boston, 1905. \$2.00 net.

A welcome addition to the Cathedral series, published by L. C. Page & Co., is the above-named volume, uniform with the others, in an artistic binding, and containing eighty illustrations from original drawings by Blanche McManus. The author writes in his usual pleasing style, with characteristic thoroughness and interest. The valley of the Rhine offers many architectural treasures to the student and traveler, and the salient points of these are noted in the author's description. Illustrations from carefully selected photographs might improve the volume, but aside from this the book is eminently successful.

NOTES AND NEWS

A CARNIVAL OF LENSES

In a recent conversation with the advertising manager of the Bausch & Lomb Optical Company, the question was asked why more of the Bausch & Lomb lenses were not mentioned in their announcements, and the reply elicited a very interesting phase of the development of that great industry which has grown up in Rochester during the past half century.

"We have so many lenses," we were told, "that it seems almost impossible to bring out the various virtues of all with sufficient clearness in our business announcements, and we have to be content with a description of a few, asking our friends to send for our catalogs in order that they may obtain for themselves a more complete description of the others. Being the first manufacturers of photographic lenses in America, the Bausch & Lomb Company have steadily acquired the most improved formulæ for lens construction, and in addition to the lenses of their own design, had placed in their hands the manufacture of the great series of lenses designed by the Carl Zeiss Optical Company in Europe, so that to-day their series includes lenses for every conceivable purpose, and of every type which practice has shown to be practical.

"In addition to the regular series with which the public is a familiar and constant user, their product includes such extraordinary objectives as the Bausch & Lomb Portrait f. 2.2 objective, the fastest long-focus photographic lens in the world, the large lenses having a diameter of as much as $6\frac{3}{4}$ inches, capable of making full-sized heads by ordinary gaslight with only a few seconds' exposure. Thousands upon thousands of rapid-projection lenses for stereopticons, biographs, kinetoscopes, etc., are produced, as well as those other still more highly specialized lenses required in the making of moving-picture negatives, lenses for photographic time recorders, automatic photographic portrait machine, photographing projectiles and other rapidly moving objects by electric spark. Objectives for various scientific instruments are among the products requiring the highest skill and accuracy, although but little known to the public. It ought to be some satisfaction for a photographer, whether he is making pictures as a pastime or for profit, to know that the lenses he uses are produced in an institution of this kind and are examined and passed upon by those whose experience covers such a wide range in photographic optics.

"It is really wonderful how the testing and building of these lenses becomes a part of the man's nature. A trained optician, after these lenses have passed through his hands for years, is able to fairly feel the qualities of a lens and to adjust it and bring it up to its highest working efficiency with the same sort of intuition that a fine musician will tune the strings of his violin to the perfect

accord which he requires for his finest efforts. Of course it is necessary for him to have at hand those scientific aids in the way of apparatus and methods without which his skill would be ineffective. But these have long since become a matter of course in the Bausch & Lomb system of lens production.

"If the users of lenses could take a little journey through the great factory and see with their own eyes the methods employed and the results accomplished, there would be no need for the advertising manager."

THE RED FOX. Charles G. D. Roberts. L. C. Page & Co., Boston, 1905. \$2.00.

Under this title L. C. Page & Co. offer us a rare treat. In pleasing and fluent style the author tells us of the red fox of the Canadian woods. It is not a recital of zoological facts but the story of a real fox, typical of his race, what happened to him, and what he did. While this book will be welcomed by mothers anxious to interest their children in studies of this character, it will be found of intense interest to the mature reader as well. The work is presented in a most artistic cover, with many full-page illustrations, reproductions of drawings by Charles Livingston Bull, and represents the choicest attainments of the bookmakers' art of to-day.

THE ART OF THE NATIONAL GALLERY. Julia de W. Addison. L. C. Page & Co., Boston, 1905. \$2.00.

Those who recall Mrs. Addison's *Classic Myths in Art*, offered to the literary world last year by L. C. Page & Co., will welcome this new production of such an able critic. The subject is handled in the simple order of historical progression followed by the National Gallery, and we are pleased to note that many of the minor and less-known pictures are not ignored. In most cases the criticisms are short, but pertinent, and the author's quotations are apt and pleasing, as usual. The illustrations, forty-eight in number, are fair duogravures taken from photographs of the paintings. We find the choice particularly happy from its variety and successful demonstration of points at issue. The book is presented in the publisher's most artistic style, and we recommend it, not only for its tasteful appearance, but also for the contents which will richly repay close study.

GEORGE A. AYERS of Buffalo, N. Y., one of the best-known and most highly esteemed photographers in the United States, died suddenly at the Cadillac Hotel in New York City a short time since. Mr. Ayers was well known and esteemed by his many friends in Buffalo and elsewhere, and will be greatly missed by every photographer who ever came in contact with him.

NOTES AND NEWS

THE Boston & Northern and Old Colony Street Railways are to be congratulated upon the success of their plan for making the people of Massachusetts acquainted with the beauty spots along their lines. Although the photographic competition for amateurs proved popular and yielded many prints of good quality, the number of entries was not as large as had been hoped. We understand that a similar contest will be conducted next year, and as the prizes offered are sure to be liberal, we suggest that our readers keep this matter in mind and watch the columns of the PHOTO ERA for an announcement of the forthcoming competition.

The judges, Thomas Harrison Cummings, editor of PHOTO ERA, George R. King, and F. E. Bowman awarded the prizes as follows:—

First prize: E. M. Astle, \$50.00 in cash.

Second prize: W. A. Cary, Lovell Diamond Bicycle.

Third prize: J. C. Crocker, Leather-cushioned Armchair.

Fourth prize: S. A. Boylen, Eastman Folding Pocket Kodak.

Fifth prize: J. H. Hunter, Pim Racket, Case and 12 Tennis Balls.

EVERY progressive photo-engraver will hail the new Bench Liner, just introduced to the trade by John Royle & Sons, as a welcome invention. This little machine provides an inexpensive yet effective means of lining up half-tones and making graded border lines by hand. The device is simple, easy of operation, and can be quickly and accurately adjusted so that the spacing of the lines will be gauged with mathematical precision. In fact, it possesses every attribute necessary to commend it to the most fastidious engraver. For further information we refer our readers to the advertisement on another page, and recommend sending for an illustrated circular.

NICOLA PERCHEID, the convincing originality and power of whose creative genius have given him a standing as a photographer high up in the front rank, has transferred his atelier from Leipsic to Berlin. At No. 6a Bellevue Strasse, in the capital of the German empire, we shall hereafter find this artist engaged in the production of portrait photographs of the character which made him so famous while in Leipsic, and specimens of which have been reproduced in the pages of the PHOTO ERA. Mr. Percheid will devote himself also, as has been his wont, to Pinatype, color photography according to the highest standard of the process, using a method developed and perfected by himself and of which he is an acknowledged master. As Mr. Percheid has not his equal as an artist photographer in

Berlin, where more attention is given to technical excellence of the old school than to a decided art quality, the path to his continued success and prosperity is straight and clear, and we herewith tender him our sincere good wishes.

MR. W. C. SOUTH, the inventor of the Solgram process of color photography, delivered a lecture before the New York Camera Club a short time ago to demonstrate the working of the Solgram process. After explaining the theory of primary colors and color photography, he led up by easy steps to the introduction of the Solgram process, by which it is possible to produce color photographs of wonderful quality from negatives taken with red, violet, and green screens. The results shown were fine examples of the process, which is so simple that it makes one long to reproduce some favorite subject in such a masterly manner.

If any club would like a demonstration of this process, Mr. South will be happy to arrange an evening with them, if they will communicate with Messrs. G. Gennert of New York and Chicago, the trade agents who are in a position to supply all necessary particulars.

THE fiftieth exhibition of the Royal Photographic Society was held in London, England, from September 21 to October 28, and was probably the most thoroughly representative collection of photographs ever shown in England. It was catholic as well as judicious, favoring no particular school or person and discouraging none. The abolition of the competitive element has to a certain extent altered the character of the exhibits, inasmuch as the selection has been conducted on lines that have made the standard of work much higher in average quality. At the same time we are inclined to think that the absolute withdrawal of the R. P. S. medal is unfortunate, as the degree has a distinct value to its possessors, and a place of its own in the photographic world that nothing else can fill. Although the entries were five hundred greater in number this year than last, twenty-five hundred in all, the number of accepted entries was less than in any previous exhibition, and more scope for effective arrangement was possible in hanging. The Pictorial Section was as ever of most interest, and showed a distinct advance in quality over previous years, while the Technical Section gave proof of the valuable work being done by photography in natural history, medicine, astronomy, architecture, and many other branches of science.

THE tenth annual convention of the Photographers' Association of Pennsylvania will be held at Washington, D. C., May 1, 2, 3, 1906. Full particulars will be given in our next issue.

PHOTO ERA

THE AMERICAN JOURNAL OF PHOTOGRAPHY

VOL. XV

DECEMBER, 1905

No. 6

PUBLISHED AND COPYRIGHTED BY PHOTO ERA PUBLISHING COMPANY, 170 SUMMER STREET, BOSTON, MASSACHUSETTS
Entered at Post Office, Boston, as second-class matter

Editor: THOMAS HARRISON CUMMINGS

Associate Editors: WILFRED A. FRENCH, A. M., PHIL M. RILEY, HERBERT W. TAYLOR

Contributions relating to photography in any and all of its branches will receive our careful consideration. While not accepting responsibility for unsolicited contributions, we will endeavor to return them if not available, provided return postage is enclosed.

SUBSCRIPTION RATES

The annual subscription in the United States, Canada, and Mexico, | Subscription in other countries in the Postal Union \$3.50
is \$2.50. Single copies, 25 cents each | Always payable in advance

ADVERTISING RATES ON APPLICATION

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FREDERICK FISCHER

A BLACK ART

SALON PICTURE

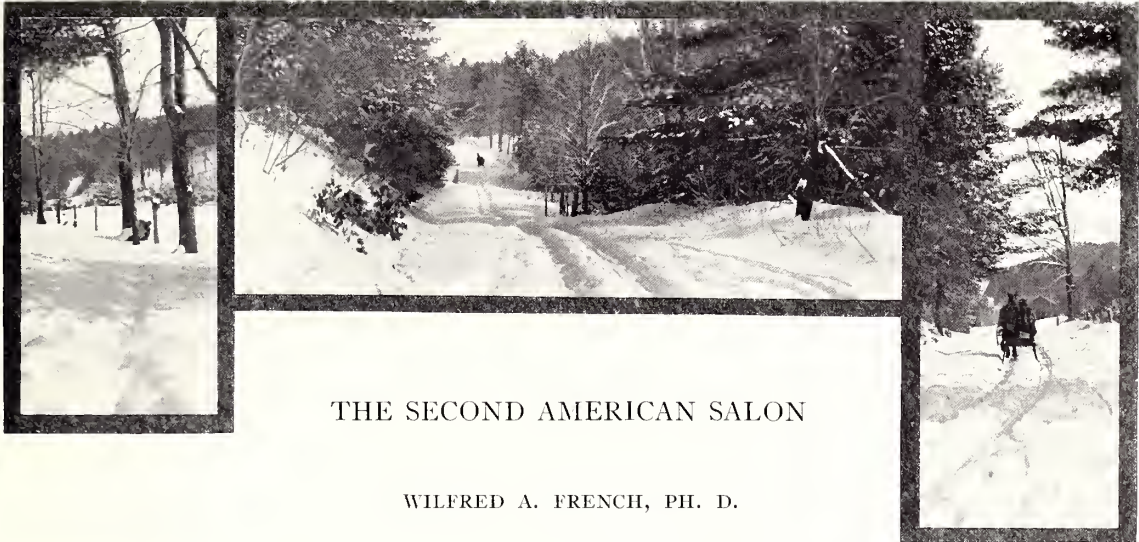
PHOTO ERA

The American Journal of Photography

VOL. XV

DECEMBER, 1905

NUMBER 6



THE SECOND AMERICAN SALON

WILFRED A. FRENCH, PH. D.

Encouraged by the success which marked the First American Photographic Salon, held in the season 1904-1905 under the auspices of the American Federation of Photographic Societies, the executive committee promptly set to work to arrange for the second series of exhibitions. As a result the Second American Photographic Salon is now in full swing and, in view of the high artistic standard thus far maintained, it is fair to assume that marked and uniform success will attend its exhibitions in the future. The conditions under which the various exhibits were assembled, judged and displayed were practically the same as last year. The number of entries was below that of the First Salon, presumably because of the rejection of the majority of pictures submitted. From a total of 1800 pictures sent to New York by the various local committees and individuals, the preliminary jury of photographers selected about 550 to be passed upon by the artist jury. The former consisted of Zaida Ben Ysuf, Dr. Wm. J. Furness and Curtis Bell, of New York; W. G. Corthell, of Boston; Walter Marshall Clute (painter), of Chicago; R. L. Sleeth, of Pittsburg and W. H. Zerbe, of Brooklyn. The jury of painters, composed of Kenyon Cox, Will H. Low, J. A. Josephi, Robert Henri, Francis Jones, Frederick W. Kost and others, met at the rooms of the Metropolitan Camera Club, November 8, and of the 550 pictures submitted to them accepted about 175 for the Salon, exclusive of the foreign contributions, which were still held in bond at the custom house. Mr. Snowdon Ward, editor of the *Photogram*, acting in sympathy with the American Salon Committee, had collected and despatched to New York a choice collection of pictures by English workers, and Alfredo Ornano had performed a similar service on behalf of Italian practitioners. Unfortunately these valuable offerings were inaccessible, but may be in evidence at the Salon later on. In making a selection of pictures for reproduction in this issue of the PHOTO ERA, we had no opportunity to fairly judge the merits of



LOUIS FLECKENSTEIN
THE GOOSEBERRY BUSH

SALON PICTURE

the collection as a whole; but the impression we gained was that the pictures, which will tour the United States as the Second American Photographic Salon, represent a marked advance in artistic quality over that of the initial year. This improvement, however, is true only of individual work rather than of the exhibit as a whole. We failed to discover evidences of a concerted movement to adopt certain pronounced principles, such as should characterize a school in painting, for instance, of the Pre-Raphaelite school, the Munich school or the Barbizon school. There seemed to be a lack of a leader with a powerful, inspiring personality and a large, enthusiastic following. The history of music and painting is filled with instances of individual forces, which for a long time dominated and influenced, if they did not direct, the creative activities of many an artist, who, only after years of patient toil and faithful study, succeeded in developing an individual style and asserting his artistic independence. In many cases the pupil has even eclipsed the master, by carrying on and perfecting the great work begun by him and attaining to even loftier heights of creative genius.

So in these youthful days, this budding period, as it were, of our beloved art, it were unseemly to deprecate the conscientious and spirited efforts of a faithful worker, simply because they suggest the controlling power of a recognized leader. Let us rather encourage such talent, cultivate and watch it, there is none too much, and if, in the meantime, we observe any evidences of prog-



FREDERICK HAVEN PRATT
LANDSCAPE IN NORTHERN ITALY

SALON PICTURE

ress or decay, we can act accordingly. In doing so, one can differentiate between actual talent — latent or obvious — and mediocrity, and it is not quite clear that such a distinction has been made in the average photographic exhibition. In the present American Photographic Salon this feature has received careful attention, thanks to the able efforts of the artist jury. There have been a few lapses, it is true, but these are but natural under the circumstances, where a painter may not be a photographic expert. The artistic quality of the collection appears more uniform than that of last year, there being no startling effects, ludicrous attempts at individuality of expression, or visions so weird as to be offensive. One notes a gain in variety and originality of subject and in breadth of treatment. Prints from decidedly worked-up negatives are not in evidence, a proof that the final jury again manifested its preference for straight photography. The *genre* section predominates in a marked degree, and there are many subjects, that make a strong subjective appeal, and themes of compelling interest. Some forty or more names represented in last year's Salon again found favor with the preliminary jury, but failed to stand the critical test. There are, of course, numerous acquisitions to the ranks of present exhibitors, among whom not a few display pronounced and pleasing individuality combined with a rare sense of pictorial beauty. As conspicuous among workers of this class may be mentioned Gust Horlin, whose "Old Water Carrier" is masterly in composition and in the management of masses and tone values; José Poquet, whose small single-figure studies reveal artistic ability of a high order;



THEODORE EITEL

GOSSIP

Virginia Prall, who evidences in "Mrs. N. and Child" — a picture worthy a better title — a very profound appreciation of a most appealing phase of child life; Frederick Fischer, strong in artistic impulse and quickness of perception, as exemplified in his "Black Art"; William H. Phillips, with his strong and broadly-handled "Fishing on the Dock"; Sweet Brothers, contributing a most effective architectural study — "October Morning," and H. Ravell, a new star of the first magnitude, although the two pictures "Pleasant Valley" and "Viga Canal" do not represent him at his best.

The following are the most noteworthy contributors whose pictures have been accepted for the Second American Photographic Salon: —

Curtis Bell, New York City, Dr. A. R. Benedict, Montclair, N. J., R. D. Bruce, Pittsburg, Pa., John Canuteson, Chicago, Ill., Wendell G. Corthell, Boston, Mass., Winfield Scott Cline, Washington, D. C., A. D. Chaffee, New York City, C. F. Clarke, Springfield, Mass., Dwight A. Davis, Worcester, Mass., A. W. Engel, Chicago, Ill., Rudolf Eickemeyer, Jr., New York City, George C. Elmberger, Chicago, Ill., Frederick Fischer, Brooklyn, N. Y., Mrs. Gatch, Salem, Oregon, Solon G. Gates, Chicago, Ill., L. O. Grienwaldt, Bremen, Germany, Sara Holm, Chicago, Ill., Gust Horlin, Chicago, Ill., Samuel Holden, Brooklyn, N. Y., Louis A. Lamb, Chicago, Ill., Adolf Lidenig, Graz, Austria, Oscar Maurer, San Francisco, Cal., P. Morrison, Catskill, N. Y., Samuel A. Martin, Pittsburg, Pa., George T. Powers, Chicago, Ill., W. and G. Parrish, St. Louis, Mo., William H. Phillips, E. Liverpool, Ohio, Frederick Haven Pratt, Worcester, Mass., José Poquet, Barcelona, Spain, Hana Robinson, Berkeley, Cal., H. Ravell, Mexico City, Sweet Brothers, Minneapolis, Minn., Walter W. Shaw, Chicago, Ill., W. McG. White, Allegheny, Pa., George

H. Scheer, Sheboygan, Wis., Mrs. Eleanor W. Willard, Grand Rapids, Mich., W. H. Zerbe, Brooklyn, N. Y., John Chislett, Indianapolis, Ind., Katherine Bingham, St. Johnsbury, Vt., F. E. D. Brown, Grand Rapids, Mich., J. H. Field, Berlin, Wis., Mrs. W. W. Pearce, Waukegan, Ill., J. R. Peterson, Portland, Me., C. F. Potter, Minneapolis, Minn., S. S. Skolfield, Portland, Me., and others.

It is to be sincerely regretted that a portion of the English photographic press again distinguished itself by assuming a contemptible and undignified attitude towards the American Photographic Salon. Certain writers, of whom we had expected higher things, vied with one another in the indulgence of vituperative attacks not only on the gentlemen identified with the American Photographic Salon, but did not spare Mr. Snowden Ward, whom they denounced vehemently for daring to assist an American enterprise. The English prints collected by Mr. Ward are reported to be of sterling representative merit, as was to be expected, and only the unfortunate circumstance of unavoidable red tape prevented a preliminary survey on our part. Violent opposition by prejudiced minds to any laudable enterprise in the interest of photography, will, as every one knows, frequently react like a boomerang, and the effect desired by these foes to pictorial advancement in photography is, as in this case, far from being complete. If they think that by obstructing the progress of the work of the American Photographic Salon, they are furthering the interests of another movement in pictorial photography, these projectors of vitiated clay are seriously mistaken. Furthermore they may rest assured that their thoroughly unmanly course towards a praiseworthy undertaking *this* side of the Atlantic is emphatically disapproved by many workers, here as well as abroad, whom, they imagine, they are propitiating. No cause in the interest of art is served by the dissemination of false and libelous reports calculated to destroy an opposing faction or even one harmlessly working along similar lines. The world is large, there is room for all and the malignant and grudging spirits on the soil of Fair Albion should henceforth try to proceed "with malice toward none; with charity to all."

FINE ART

THE PROBLEM OF PHOTOGRAPHY

Each autumn the opening of the photographic exhibitions seems to be the signal for a renewed discussion of that vexed question: "Is photography an art?" and, notwithstanding all the arguments on either side which have already been advanced, the problem still awaits an authoritative solution.

In order to clear the rather foggy atmosphere in which this problem is at present enveloped, it is not necessary to attempt the definition of art with metaphysical precision. It will be sufficient to recognize that art is relative, that it is not so much the doing of any one thing, as the way in which a thing is done. To dogmatize, to assert that one form of human activity is an art and that another is not, is inevitably to lead to a misconception of the nature of art. Artistic qualities are matters of degree rather than of kind, and consequently all human activities are capable of being elevated, more or less, to the dignity of art. The catholicity of art and its distinction from mere skill have been set forth in a lucid and homely manner by a contemporary novelist. "Practical efficiency of a flawless kind is," he says, "reached naturally in the struggle for bread. But there is something beyond — a higher point, a subtle and unmistakable touch of love and pride beyond mere skill; almost an inspiration which gives to all work that finish which is almost art — which *is* art."

In this "something beyond," which seems to baffle closer definition, there is nothing obligatory. No man is compelled to create a work of art or to become an artist — using the word in its widest and strictest sense; nor does he automatically create the one and become the other by simply adopting the profession of a landscape painter or musical composer. At the risk of being charged with redundancy, it must be said again that it is not what a man does, but how he does it that makes him an artist. No matter how loosely the word be applied as a courtesy title to the members of certain professions, the mere act of painting will never itself make any man an



VIRGINIA M. PRALL
PORTRAIT OF MISS S.

SALON PICTURE

artist. He will not truly be deserving of the title till he has pushed his proficiency in painting to a point beyond mere skill; till he paints not only correctly, but with all his heart, with all his mind, with all his soul, and with all his strength; till he has become so absorbed in his painting that his painting will have absorbed something of himself. Every man, then, who puts himself into his work — that is to say, not only does a thing and does it well, but as well as he can possibly do it, working on beyond the point of mere efficiency, not for the sake of gain or fame, but for his own satisfaction, because he is impelled to do it from within, though not compelled to do it from without — this man, whatsoever be his trade or profession, has the artist soul, and is, in however low a degree, an artist.

Strictly speaking, then, the problem as to whether or no photography is an art has no real existence. Like drawing, it may be or it may not, the decision resting not with the practice but with the practitioner. A schoolboy's geometrical drawing is not usually a work of art, nor are the "three cabinets for half a crown" of a cheap photographer; but to ascertain the artistic possibilities of any form of activity one must consider its highest, not its lowest manifestations. Till



ELEANOR W. WILLARD
PORTRAIT OF MRS. P.

SALON PICTURE

we have seen the work of the best photographers we cannot say how far their work is artistic, and till we have seen how far their work is artistic we cannot approach the problem that does exist, which is this: admitted that photography, like all other human activities, may be elevated, more or less, to the dignity of an art, to what point is it capable of being elevated? How does its position compare with that of similar activities, such as drawing, etching, and lithography?

The exhibition of work by members of the Linked Ring, held in the gallery of the Old Water-Color Society, may be taken as representative of the highest forms of modern photography, and to any unbiased person it must be perfectly clear not only that artistic qualities are patent in the greater number of the exhibits, but also that in certain prints these qualities are present to a very high degree. To the critic one may cite the work of M. Edouard J. Steichen as being especially worthy of his attention, because M. Steichen's prints are not only decorative, as are those of so many other exhibitors, but bear most strongly the imprint of the photographer's personality. No graver charge has been brought against photography than that it is too impersonal to rank highly as an art. One can recognize a Watteau as a Watteau, a Burne-Jones as a Burne-Jones, but a

photograph, it has been argued, by whatsoever photographer, can still only be recognized as a photograph. Were this true, the artistic qualities of photography would scarcely be worth further consideration, but the proof of its falsity is that a comparatively inexpert student can without much difficulty recognize a Steichen as a Steichen, and a Hollyer as a Hollyer; and if it be urged that there are imitation Steichens and imitation Hollyers, one has only to remark that there are also imitation Watteaus, and that about an equal amount of expert knowledge is needed in either case to distinguish between the original and the imitation.

But, although a photograph may be both decorative and personal, there is one very important particular in which it differs from the drawing, the etching, or the lithograph. The photographer works on a foundation that already exists; the draughtsman and the etcher have, so to speak, to sink their own foundations. The photographer composes, he shades and lightens, but he does no outline drawing; and because outline drawing is commonly considered the base of all pictorial art, the photographer is apt to be looked upon as an almost dishonest shirker, as a bad boy who uses a "crib" to nature instead of laboriously translating her word for word with the prescribed dictionary. Without pressing the analogy too far, or in any wise defending the malpractice, it may be added that even a translation with the help of a key may show individuality, so long as the boy does not copy the words out of the forbidden book exactly. Similarly, even at the first and most mechanical stage of his operations the photographer, though to a less degree than the draughtsman, can assert his own individuality. He does not draw his picture with his hand, it is true; but in a sense he does draw it with his mind, in that he has full liberty in adjusting the focus of his camera, which thus sees what is before it with that degree of clearness or dimness that the photographer pleases. This control of the focus, comparatively a new thing in photography, does not, to continue our parallel, put the photographer on an equal footing with the boy who uses the dictionary only, but it does put him above the boy who copies out his "crib" word for word. The photographers of old, as the less skilled operators of to-day, had but one idea of focus; all details must be seen as clearly and sharply as possible, and then, hey presto! remove the cap or press the button. If all the twigs of the tree and all the pebbles on the beach were not shown with merciless severity of vision, then the photograph was condemned as being "out of focus." A landscape in these circumstances became a mere inventory of natural effects and properties, and doubly failed as a work of art; it gave no play to the spectator's imagination and bore no impress of human personality. It was nature seen through a scientific instrument, not nature seen through a temperament.

In making his camera see not as *it* liked, but as *he* liked; in searching after not details but a general effect, the photographer made an immense stride towards the domain of art. He still worked upon a foundation, but he established a certain amount of control over that foundation, and within the limits of that control he could create as well as imitate. He was no longer limited to one view of the world — a commonplace view, as if seen in a monochrome camera obscura; he could look on foliage with the dreamy gaze of Corot, or wrap the Thames in a Whistler veil of poetry.

In the first instance, then, the photographer can not only choose his point of view, his time of day, season of year, condition of weather in outdoor work, and arrange his model and control his lighting in indoor subjects, but what is still more important, he can to a very great extent see them as he chooses. And this first intervention of the artist, the manner of seeing a thing, is of such importance that all his subsequent interventions, in developing the plate, in printing the print, seem of secondary importance. In reality they are no less important than the biting of the etcher's plate, and the pulling of his proofs. In all save the actual putting of pen to paper and needle to plate the photographer is the equal of the draughtsman and etcher. To underestimate the value of the manual work of the latter would be unjust, but unless we are prepared to assert that dexterity of hand is more important than the vision of the artist, we are constrained to admit that the photographer is on an equality with every other worker in monochrome in all things save those which are most elementary. — *The Academy, London.*



MOUNT RAINIER

AGNES LOCKHART HUGHES

Majestic in thy grandeur, proud Rainier,
Thou standest like a haughty jeweled queen;
The scepter sparkling with its uncut gems,
And diamonds glittering on thy brow, serene.
A sea of sapphire ripples at thy feet,
While sunbeams on its placid bosom play;
But when the teasing wind sweeps o'er its breast,
What message do these wild waves bring thee, pray?
In vain the Ice King doth approach thy throne,
And snow-clad knights come wooing thee, Rainier;
How oft I've seen their diamonds on thy breast,
And watched them twine their pearls amidst thy hair.
But when the Sun-God kisses thy sweet brow,
The gifts these suitors brought thou flingest down,
And ever after wearest thou his gift,
A gorgeous opal, in thy glittering crown.
How many songs are locked within thy breast,
That sighing pines, and winds, have borne to thee?
What scores of melodies thine ears have heard,
Played on the harp-strings of the murmuring sea.
But never from thy throne dost thou descend,
To kiss the waves that long have laved thy feet.
Yet, thou dost smile when dawn caresses thee,
And with what joy the Sun-God thou dost greet!
Yes! proud Rainier, a very queen thou seemest—
Fashioned by Him who fashioned earth, and sea, and sky.
Ah! Too, thy silent might doth teach me, dear,
How great art thou, how infinitesimal, I!

THE PRINCIPLES OF PHOTOGRAPHY BRIEFLY STATED

PHIL M. RILEY

TWELFTH PAPER—SNOW PICTURES

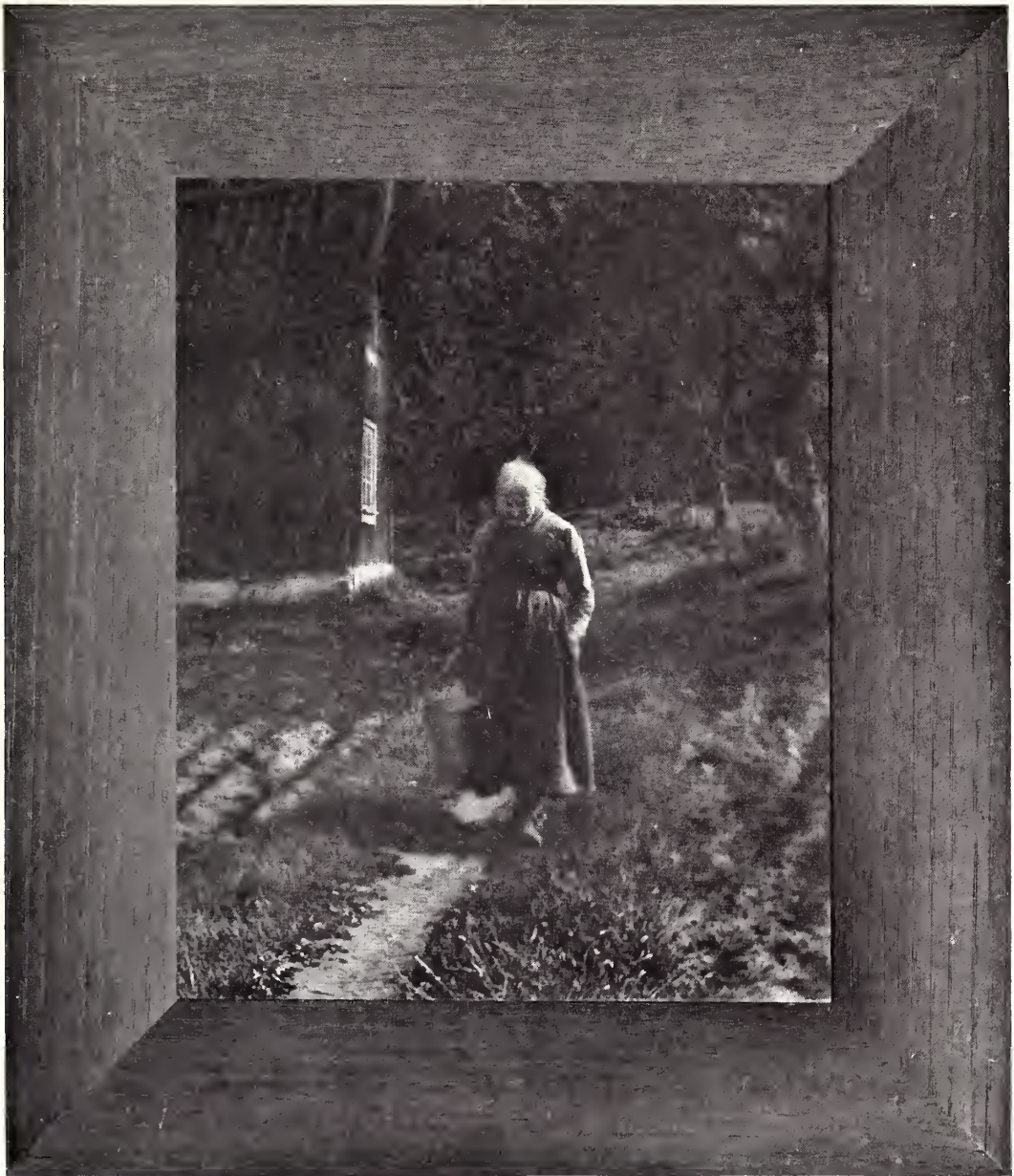


1. *Apparatus.*—Many amateur workers put away their cameras and do not think of using them during the winter months; some because they have been told that snow photography is exceedingly difficult, and others because the smooth surface and uniform color make the snow seem too unresponsive a subject for pictorial work. Difficulties ever furnish an added incentive to the true lover of photography, but in this instance no very perplexing troubles will be experienced if the work is attempted in the right way with proper materials. As to the matter of pictorial effect, it may be truthfully said that there is a charm about winter landscapes which cannot be equaled by the most beautiful foliage of summer. Much of this subtle beauty is dependent upon the lighting, and here it is that beginners who attempt snow pictures at noon find disappointment awaiting them. The leafless trees cast very little in the way of shadows to break the monotony of white, but how interesting those sprawling shadows become by the soft light of a low sun! Then there is indeed pictorial effect. So learn the first lesson: Make exposures early and late in the day.

Very little need be said here about apparatus, because snow pictures, as we usually construe the term, are landscapes in winter, and therefore require the same apparatus as would be used for making landscapes in summer, which has already been treated in this series. It is best to use a tripod and focusing screen, but for the sake of personal comfort in very cold weather these may often be dispensed with, and the finder and focusing scale used instead. If the tripod is abandoned and this latter method adopted, a hand camera may be used, or the ordinary folding camera can be readily held and manipulated in the hands. Simple apparatus is always a great comfort on cold days.

2. *Plates and Films.*—As far as technical excellence is concerned, the success or failure of a snow negative depends principally upon the nature of the plate or film used. The average winter landscape usually contains strong contrasts, such as dark tree trunks against white snow, and the resulting negative shows halation, unless proper means are taken to avoid it. Now just what is halation? It is the spreading of strong light from the light parts of the image into the adjoining dark parts, so that both are indistinct in outline, often giving a blotchy effect, which is most apparent in views where the branches of trees, chimneys, and the like appear against the sky; and also in interior views which include windows. The reason for this faulty rendering is that with a rapid plate the strong light from the sky and snow or other objects penetrates the sensitive emulsion, and is reflected into it again from the back of the glass plate at a different angle, in this way causing a spreading of the image and giving almost a double exposure to the light parts, and consequent harsh contrast between them and the dark parts, not strong enough to penetrate the emulsion. This is one of the reasons why blue sky prints out so white, the other, of course, being its color. Two remedies for this defect present themselves: one by backing an ordinary plate; the other, by using double-coated or non-halation plates.

The cheaper of the two methods is to back ordinary plates with an opaque compound, which has, as nearly as possible, the same index of refraction as glass. Employing this method, the light passes through the glass into the backing and is there absorbed. If the refractive index of the backing was the same as of glass, the whole quantity of light would pass out of the glass; but no substance has exactly the same index, although caramel so nearly approaches it as to



GUST HORLIN
THE OLD WATER CARRIER
SALON PICTURE





LOUIS FLECKENSTEIN
STUDY OF A HEAD

SALON PICTURE

be a great boon to photographers. A good backing mixture may be made as follows:—

Caramel, 1 oz.; mucilage, 1 oz.; burnt sienna, 2 oz.; mix until free from grit and lumps and then add alcohol, 2 oz. This solution, when thoroughly mixed, is to be painted on the backs of the plates with a brush, after which they should be set away to dry before loading into the plate-holders. The backing can be readily washed off with a damp sponge before development to prevent staining of the developer.

On account of the inconvenience of this method and the extra time required, double-coated or non-halation plates are preferable. Such plates are coated by the manufacturer with two emulsions; the lower being much slower or less sensitive than the upper. The high lights penetrate the upper emulsion but are absorbed by the slower one underneath, and therefore both high lights and shadows are kept within the latitude of the two emulsions, with the result that proper brilliancy and gradation are secured. Thus it may be seen that double-coated plates possess points of advantage in snow photography, as well as in other branches where there are strong contrasts or intense lights causing a tendency toward halation. On the other hand, it is often possible, by the exercise of great care, to secure pleasing negatives of scenes which do



SWEET BROS.
AN OCTOBER MORNING

SALON PICTURE

not present excessive contrasts upon an ordinary plate which has been backed as directed; but if this is to be attempted, a slow plate will be more likely to insure success, owing to its greater latitude.

Much of the beauty of a snow picture is dependent upon correct rendering of tone or color values, and for this reason advanced workers are agreed that an orthochromatic or isochromatic plate is necessary. Reference to them has already been made several times in this series, and the theory of their preparation is a subject worthy of a separate paper. Let it suffice to say here, however, that the sensitive plate emulsion is not acted upon equally by the different colors of the spectrum; violet and blue rays producing a greater chemical change than the red, yellow, and green rays at the other end of the spectrum, which appear brighter to the eye. In order to secure gradations of density in the negative commensurate with the brightness of the different colors as the eye sees them, certain dyes are incorporated in the emulsion, which absorb part of the overactive rays of light, and give more range to the colors less active. This is the backbone of orthochromatic photography.

Although orthochromatic plates do much toward correct rendering of color values, the de-

fect of the ordinary plate is not wholly rectified. The best of these brands give good color values for most of the colors, but they are still oversensitive to blue and violet, and render them too light. In views where these colors play important parts, a yellow screen or ray filter must be used to retard them. A considerable amount of blue light is reflected from the snow, especially in the shadows; and hence the desirability of corrected plates used in conjunction with a ray filter. The filter should always be adjusted for the plate used; and as nearly all plate manufacturers can furnish filters suitable for their own brands, with information as to the exact increase of exposure necessitated by them, there should be no difficulties on this score.

All this goes to indicate that the best snow pictures may be secured by either of two methods: One by backing an orthochromatic plate to prevent halation; the other, and more convenient method, by using plates which are both non-halation and orthochromatic. These plates have been put upon the market within a comparatively short time by some of the best plate makers, and, as they seem to fill every requirement of difficult and varied work, many advanced photographers use them exclusively. Much good may be said of this system, for by choosing one brand of such wide adaptability the worker can soon become accustomed to its every peculiarity, and feel much more certain of a larger proportion of successful pictures than if several brands are occasionally used. Among the most commonly used plates, corrected for both halation and color values, may be mentioned Seed's Non-halation Orthochromatic, Standard Orthonon, Hammer's Orthochromatic Non-halation, and Cramér's Instantaneous Isochromatic Non-halation. All of these have the speed of plates listed in Class $1\frac{1}{4}$, in the exposure tables of the third paper of this series. With these plates a ray filter is not necessary in order to make a perceptible improvement over what could be done with the ordinary plate; but with a filter, difficult problems become easy, and true and exact rendition of color values is obtained. Owing to the extreme thinness and the black paper backing of films, little trouble is experienced in the matter of halation, and the Eastman N. C. Film possesses, in addition, orthochromatic qualities, which render it well adapted to snow photography.

3. *Hints on Selection, Lighting, and Composition.* — All of one's pictures, especially those made in winter, should be numbered by quality, rather than by quantity. Most photographers use their cameras too much, and in a haphazard manner. It is not always necessary to carry a camera whenever one goes out, and if left at home there is less chance of its being used needlessly. "First catch your hare" is a good old maxim. Always be on the lookout for good picture material, and when found do not get a camera at once, but study the view critically. Try to determine how circumstances and conditions may better it, if this is possible, remembering that while composition of line is necessary, the masses of light and shade, and also the atmospheric conditions, must be in harmony to produce a work of art. And when this one work of art is secured, it is worth more and gives more pleasure and satisfaction than the whole grist of other views made during the winter. Anybody can make a commonplace snow picture which would not be mistaken for anything else, but why not make a picture that needs no excuse for its being? There is a satisfaction in putting time and study into each composition, and producing something worth while. Prize pictures are made in this way, not in a hurry; and it is surprising how few pictures the makers of prize-winners produce, as a rule, because so much time and study are given to each. When you see a view having the elements of a good picture, determine whether all other conditions are in harmony; and if not, wait until a time arrives when they are, and you will be amply rewarded. The difference in lighting, which a little patient waiting will effect, nearly always gives the desired result. When the right time arrives, it is always well to make duplicate exposures, in case any accident should happen to one of them.

Winter landscapes present an opportunity for infinite variety of composition and arrangement. In fact, when in the country, it seems as if a beautiful view may be had in any direction, and for this reason the problem of selection takes on considerable importance. Simplicity and harmony should be kept in mind constantly. The chief trouble with most of the pictures made is that too much has been crowded into them. Simplicity is always conducive to strength; so



PHIL M. RILEY
THE SPIRIT OF WINTER



let the important objects be few, and all in harmony with each other, and the character of the picture. Contrary to the opinion of some, the most ordinary objects are productive of pictorial effect, and owing to the snow and low lighting, many objects take on a charm and interest which is entirely absent in summer. The shadows often furnish the motive and interest of the most beautiful winter pictures, and their forms and directions should be carefully studied. It may be said in general that they should not lead directly up and down or across the picture, but rather diagonally across, and by this means the principal object may often be brought into prominence. A foreground of snow, on which are the shadows of trees, snow-covered fences, the rounded banks of open streams, little bushes, dry stalks of goldenrod or cat-tails, trees loaded down with newly fallen snow, wintry roads and well-beaten paths across the fields or through the leafless woods, all furnish material for good pictures.

Since the shadows in the foreground often add so much character to a picture, it becomes evident that the early morning and late afternoon are the best times to make exposures. At noon the shadows are short and black, but during the early and late hours of the day they are soft, long, sprawling, and extremely picturesque. Another good reason for advising these times of day is that the contrasts are not so strong; a circumstance usually to be desired.

We must not forget the direction of the light; that, too, needs attention, for in winter it is very noticeable in the leafless trees, as well as in the shadows cast by them, and should be studied. To do this, take a position facing a tree, with the sun directly back of you. There is little beauty to be seen from such a position; everything appears flat, without contrast, and there are no shadows. As you move around so that the sun will be either toward the right or left, one side of the tree is in light and the other is in shade; every branch stands out distinctly, and the shadows cast on the snow begin to be more in evidence. By moving around the tree in semicircular fashion, it is possible to choose a point of view so that any desired proportion of it will be in light or shade. Moreover, this effects a change in the apparent direction which the shadows take. If the trunk of the tree shows a much larger proportion of light than of shade, the direction of the shadows will be away from the camera, and if prominently in the foreground, they should usually lead toward a principal object other than the tree itself. When the shadows are well back in the middle distance, this caution is not so necessary, for they will generally hold but secondary importance. If the trunk of the tree is almost wholly in shade, the direction of the shadows will be toward the camera, and will lead the eye toward the tree as the principal object, or at least in that direction. This latter lighting can, of course, be secured only by pointing the camera almost directly toward the sun. By shading the lens from the direct rays of light during exposure with a plate-holder slide, or a hat, very pleasing pictures may be made with this lighting, and the long shadows obtained are very effective.

In photographing immediately after a storm, it is often necessary, for the sake of pictorial effect, to break up some monotonous expanse of white. Various dodges are resorted to which tend to add character and variety, but space permits only a few suggestions. The most common practice is probably that of walking several times through the foreground of the view, to give the effect of a beaten path. Before doing this, however, one must consider carefully where the path is to lead to, for once made it cannot easily be obliterated, and as it will probably furnish the most prominent lines which lead up to the point of interest, the exact direction is very important. Very often a good composition is found, which needs something of interest in the foreground or middle distance to fill a blank space of snow, which insists on holding the eye; or it may be needed to complete some form of composition upon which depends the success of the picture. It is surprising what a little thing will answer this purpose. Two or three stalks of old dry goldenrod, a few willow shoots, or a little scraggy bush will do the work admirably. Any of these can usually be found near at hand, cut with a knife, and stuck into the snow wherever desired. Care must be exercised that this transplanting is done in a natural manner, and, above all, not overdone, or the effect will be ludicrous in the extreme. Quantities of little dodges like these will suggest themselves in actual work, and may be used at times with great benefit.



THEODORE EITEL

A BIT OF NEWS

The worker's great ambition should be to get the sentiment of winter in his views; the sentiment of the cold, blustery winds, that rush through the branches of the leafless trees, and whistle around that little house over the hill as they did "back in the good old days when I was a boy"; make this sentiment so in evidence that the critic who sees the finished picture will feel like putting on muffler and mittens for fear of getting a frost. Arouse the imagination of the beholder so that it will require but a slight stretch of fancy to see within the little country house and almost become a part of the happy group gathered around the roaring fire of birch logs in the fireplace; the father reading his paper, the mother knitting and the children popping corn or roasting chestnuts in the coals on the hearth.

4. *Exposure.* — It seems to be a common habit among photographers to shirk each process in the making of a picture as it comes along, with the thought that any little fault or error can be corrected in the next process, or before printing. What every worker should strive for in each process is to save work in the next; for if this is not done, faults rapidly multiply and considerable after treatment will be needed to get a satisfactory print; and the chances are that it cannot be secured at all. In the long run it pays to be accurate in every process, and not hurry or shirk any part of the work. The matter of exposure, for instance, is frequently hustled recklessly out of the way with very little consideration. The thought usually is that the exposure given cannot be far wrong, and that what error there may be can be corrected in development. But this makes much extra work and the results are never quite what was desired; atmosphere and tone being absent, if not detail or contrast. This explains why many pictures, which by all the laws of nature should please, fail to do so. Exposure is justly the most important process



JOSE POQUET
MUSICA

SALON PICTURE

in the technical side of photography, and workers should give it more attention and study, leaving development to take care of itself to quite an extent. "Expose correctly and let normal development take care of itself" is a good maxim to add to the well-known code of old ones. These days scientific workers are beginning to believe that various modifications during development do not furnish a cure-all for any error in exposure, as was believed to be the case a few years ago. This, as well as other new doctrines regarding development, are based upon the results of many experiments made in the most scientific manner and, although they seem quite antagonistic to the generally conceived ideas on the subject, we can but accept them as facts. It therefore behooves the serious worker to be very careful to secure correct exposure. The importance of this becomes especially evident in snow photography, or in any other branch which is improved by using non-halation plates. As they consist of two emulsions, the high lights are not brought down to the glass so as to be visible on the back; density cannot be estimated by the appearance of things, nor could the action of a special modified developer be accurately judged. Correct exposure accompanied by factorial development seems to be the only course. Common sense tells us that correct exposure is more to be desired than a complicated method for equalizing over and under exposure; and it is a truth that we should study exposure more and development less. Let us therefore make it our purpose to accept the doctrines of



W. H. PHILLIPS
FISHING ON THE DOCK

SALON PICTURE

our scientific brothers and give our own attention to mastering the intricacies of exposure, confident that if we succeed in this, development will practically take care of itself in ordinary work. Let this resolution be applied not only to the making of snow pictures, but also to all other branches of photography.

All snow views which do not include moving objects may be divided into three classes, according to the nature of the view.

Class A. Views made up of high tones, without any extremes of contrast.

Class B. Views in which the contrasts are medium, and if faithfully reproduced will be neither too slight nor too great.

Class C. Views in which the light tones of sky and snow are brought into direct and excessive contrast with tree trunks or other dark objects.

The fourth part of Table I, in the exposure tables of the third paper in this series, gives exposures for snow scenes, and the figures given there are intended for faithful reproduction of medium contrasts, as just indicated under Class B.

In Class A are included open "snowscapes" without foreground, views made after a storm, when the trees and other objects are loaded down and coated over with snow; and also all views made up of high tones, such as a wide expanse of snow, unbroken except by a few delicate

shadows and trees or buildings in the distance. None of these views possess strong contrasts, and if care is not used to preserve what contrast there is and make the most of it, the picture will be flat and without character. We know that short exposures increase contrasts, and long exposures decrease them. Therefore any error ought to tend toward underexposure, and the exposures stated in the tables for snow scenes should be decreased one-half for the views in this class. In the exposure tables of the third paper, these figures may be found in the fifth part of Table I, under the heading, "Sky and Fleecy Clouds." If the lack of contrast is so pronounced as to make an increase desirable, we may not only give a short exposure, but also use a small stop, knowing that small stops tend toward contrast, while large ones tend toward softness.

Class C includes all views in which there are strong or excessive contrasts, especially in the foreground; the monotony of snow in such views usually being relieved by tracks or shadows. From what we already know of the effect of exposure and the use of stops, it is easily seen that a long exposure and a large stop will give the desired result, and any error in timing should tend toward overexposure. The exact exposure, however, is no mean problem to solve; because to preserve the gradations of light and shade in the snow, and secure detail in the darker objects, presents many difficulties. The secret is to expose for detail in the darker objects, and in general an exposure double that for medium snow scenes will be about right. These figures may be found in the second part of Table I, in the exposure tables, under the heading, "Open Landscape without Foreground." When photographing against the sun, views will nearly always come under this class, but when working at right angles to the sun's rays, or with the sun almost back of the camera, the contrasts will not usually require greater exposures than for Class B.

Views including moving objects, such as are seen in streets, furnish material for a separate class in snow photography. The exposures required by the rapidity of motion have already been taken up in the tenth paper of this series, and need not be referred to again here. Comparison with the exposures required by the lighting and contrasts will show that in many cases correct timing requires a shorter exposure than the rapidity of movement, and thus correct timing is all that is required. If this is not the case, the tenth paper fully explains how correct timing may be secured, and moving images without blur as well.

5. *Development.* — As has already been suggested, the high lights are not brought down to the glass in developing non-halation plates, and therefore the factorial system of development is the only reliable means of judging density. This method was explained in the fourth paper on development, so there is no need for repetition here. The development of a double-coated plate is the same as with the ordinary plate, except that about double the normal quantity of water must be added. This allows the developer to penetrate the lower film before much progress has been made in the upper one. It is necessary that both should develop simultaneously, and a weak solution makes this possible. The pyro formula given in the fourth paper is an excellent one for developing double-coated plates, and, although it requires different modifications for different brands, a little careful reasoning, with the platemaker's suggestions on the instruction sheet, should make any necessary changes an easy matter. For example, let us consider Seed's Non-halation Orthochromatic and Standard Orthonon. In preparing the pyro developer for the Seed plate, take stock solution No. 1, 1 oz.; stock solution No. 2, $1\frac{1}{4}$ oz.; stock solution No. 3, 1 oz.; water, 18 oz. The factor is 14. For Standard Orthonon take stock solution No. 1, 1 oz.; stock solution No. 2, 1 oz.; stock solution No. 3, 1 oz.; water, 12 oz. The factor is 12.

6. *Printing.* — Snow pictures should of course be printed in black and white, and therefore bromide and "gaslight" papers are both capable of giving fine results. With many negatives platinum gives prints which cannot be equaled by any other process, and it is perhaps the best paper for this branch of photographic effort. The gray tones of the sky, the white of the snow, and the trees and delicate shadows will always be faithfully rendered from a good negative by platinotype methods. There are also many examples extant to show that both the gum and carbon processes are at times well adapted to snow scenes.



VIRGINIA M. PRALL
MRS. N. AND CHILD
SALON PICTURE





W. G. CORTHELL



STREET SCENES

THE CAMERA IN A DREAM CITY

W. G. CORTHELL

Not of any American city, or city of other lands with the spirit of modern days, do we write, but of one which saw its importance in the centuries which have passed. In the medieval days, when the world was at its antipodes from the modern rush, there grew up and flourished our dream city of Dinan, in picturesque Brittany. The camera revels in such atmosphere. On every hand is a quiet, yet charmed life, which seems to stand ready and beckon the man of pictures. It all has such a foreign and far-away air. Dinan has been standing still for centuries, waiting for the modern wizard who will roam its streets and carry away in his magic box the secrets of other days.

Going from Paris, the great modern Babylon, to the little Briton city, is like falling asleep amid the roar and confusion of Broadway and then dreaming softly of far-away Amalfi or Venice. Here in Boston we are accustomed to the wide-awake rush of strenuous business life. The whistles of the great factories sound out the imperious call at six o'clock, and after that there is no rest all the hours of the day. Toil, hurry, care, intenseness, dominate the day and almost the night. But in quaint and quiet Dinan one steps at once out of it all into memories of the scenes of the Middle Ages. All about him are reminders of life and its customs long before the modern cannon battered breaches in the walls which had been a bulwark against the many enemies who came to conquer.

Dinan was in its prime in the thirteenth and fourteenth centuries, and it was then its present massive walls were erected and its great gates swung open only in days of peace. Long before America was discovered Dinan had its history. Its great Church of St. Sauvier was built in the twelfth century, and many of the quaint houses which are now inviting the camera were reared more than six hundred years ago. Its arcades, built under these very old houses, have been traversed by generation after generation, and the joys and sorrows of life have been repeated over and over again. Long ago, when Brittany was the Roman Armorica, and Julius Caesar ruled the country, Dinan was built on the bold, rocky heights above the beautiful valley of the Rance. What a pity the kodak had not been in use then to record for us the pictures of life among the gay knights and ladies of Roman days. The towering bastions are there yet, but the Roman legions are gone. The great Charlemagne found the town important enough for him to besiege and conquer. What scenes then for a camera! Could one have taken a few snap-shots of the mighty king and his then terrible engines of war, we might have an album worth the showing.

We may get a picture of the holy water font in St. Sauvier and know our subject is eight centuries of age; but how much more precious if we could have had a snap-shot of Du Guesclin, whose heart is buried in the church. He was the redoubtable warrior who, while defending



W. G. CORTHELL
 ARCHITECTURE OF OLD DINAN
 AFTER SUNDAY MORNING MARKET
 ONE OF THE ANCIENT GATES





W. G. CORTHELL

SCENES IN DINAN

the city, met in single combat, before the assembled armies, an English knight in 1359, and in whose honor a statue stands until this day.

A hundred and fifty years later we might have used a few films on the quaint-costumed crowd that celebrated the placing of the big clock, the gift of Queen Anne, in the famous tower. We may take a picture of it now, but the crowd, the actors, the men of old, are gone. The past has left us many souvenirs, however; the costumes of the women; the old gates, overgrown with moss and shrubs; the old houses in which lived the people of the fourteenth century; the castle, now a prison, frowning as it did a hundred years before Columbus; the steep, rough-paved streets; the shrines of the saints, with swinging lamps; but the clanking of the swords, the gleam of polished armor, the noisy clatter of armed horsemen, and the customs and dress of the days of feudalism have gone forever. There may be other equally interesting places in Normandy and Little Brittany for the traveler to visit, like the Point de Cancale, St. Pair, Granville, Aranches, Mont St. Michel, and Coutances, but there is no place like Dinan for the picture lover, as it abounds in quaint houses, old streets, picturesque costumes, and historical associations, unrivaled by any of its neighbors. Its position is unique, and one can live the distant past over again, in fancy, with little or no difficulty.

So with camera in hand we listen to the music of clattering sabots, and dream of the olden times, and secure for our friends in America reminders of life out of the open book of vanished centuries.



W. G. CORTHELL
 A CORNER LOT IN DINAN
 A GATE OF THE CITY WALL
 RAMPARTS OF FEUDAL DAYS



EDITORIAL DEPARTMENT

MERRY CHRISTMAS

“A Merry Christmas and a Happy New Year to the old man, whatever he is!” said Scrooge’s nephew. “He wouldn’t take it from me, but he may have it, nevertheless.” Uncle Scrooge had imperceptibly become so gay and light of heart, that he would have pledged the unconscious company in return and thanked them in inaudible speech if the ghost had given him time. But the whole scene passed off in the breath of the last word spoken by his nephew; and he and the Spirit were again upon their travels.”

The sentiment contained in this beautiful piece of word painting, from Dickens’ famous “Christmas Carol,” embodies the spirit of this season of the year. The PHOTO ERA is glad to echo this lofty sentiment and repeat this spirit of good will to all its readers, by wishing them all a Merry Christmas and a Happy New Year.

THE MIND A CAMERA

In a world where selfishness, greed and hate play such a large part, the coming of the blessed Christmas time, with the kindly feelings it inspires, is like a sweet oasis in the desert. Every time a good impulse and a worthy aspiration is encouraged we are benefited and strengthened by just so much. And just so often as a selfish, base or ignoble impulse is overcome, just so often are we purified and made better for the future.

The mind and character of each one of us can be likened to a big camera, over whose sensitive plate flash the impressions of many lives and the reflections from our many acts. At this special time, it is becoming for us to put in a new plate and make a new exposure, — the result will be, if we are in tune with the season, a beautiful new picture with “Peace on earth, good will to men,” developed all over it.

ART IN PICTURE MAKING

Some great man has said that morality is the harmony between the act and circumstance. It is the melody of conduct. A wonderful statue is the melody of proportion. A great picture is the melody of form and color. A great statue does not suggest labor; it seems to have been created as a joy. A great painting suggests no weariness and no effort; the greater, the easier it seems. So a great and splendid *photograph* seems to be without effort. There is in it no straining after effect, no stiffness, no affectation, but only simplicity and ease. The perfection of art is to conceal art, and the great artist photographer only expresses his joy in the work he does and the pictures he makes.

These thoughts are suggested by the members’ exhibition at the “Little Galleries” of the Photo Secession, 291 Fifth Ave., New York City, which was recently opened and will run during December. This exhibition, they announce, will be followed by exhibitions devoted to Viennese, French and British Photographs, and by other exhibitions of modern Art not necessarily photographic. As a protest against the Conventional conception of pictorial photography it is most worthy of the attention of the photographic world.

JOSEF PETZVAL

The eminent services of Josef Petzval, the creator of the first double objective, have at last received recognition in tangible form. A bronze monument to his memory was dedicated October

17 of this year in Vienna, Austria, where the great mathematician and the afterwards celebrated optician firm of Voigtlaender worked together and gave to the world the first important photographic lens. There are those who claim that the Petzval system, as constructed by Voigtlaender and slightly modified by Dallmeyer, possesses qualities that have never been surpassed, if equaled, by any other lens system. Certain it is, that portrait lenses of this style by the above-named optical firms, if in good working-order, can be sold at a premium to-day. For the production of round, brilliant and well modeled portraits, these lenses are, doubtless, still unsurpassed.

ART IN THE RECEPTION ROOM

It seems to be the fashion now among photographers to decorate the reception room of their studios with oil paintings, to the total exclusion of photographs, which are kept in cabinets or sample cases. When the art display comprises works of considerable value, and evidences of the proprietor's true vocation are lacking, what wonder if a stranger mistakes the place for the office of a regular picture dealer. Such an error might flatter the vanity of the photographer desiring to arrogate to himself the airs of an art connoisseur; but is it consistent? Is it honest? It has been the sincere belief of many successful practitioners that to screen the character of the photographic studio, often mistaken by timorous persons for a real "operating room," is excellent diplomacy, and the substitution for the conventional colored enlargement with its gorgeous gold frame, or the customary array of prints in variegated enclosures, oil paintings, water-colors, statuary or other evidences of a refined and cultivated taste, imparts to the establishment a distinctly artistic atmosphere. In many cases where the photographer has sent forth work of a high order of merit, the end seems to have justified the means, and his patrons are impressed with the idea that he is truly an artist.

It cannot be denied that an impressive art display enables the artist photographer to exert an educational influence over those of his patrons who have but a limited idea of artistic taste or fitness and to instil in their minds, maybe, the first principles of what constitutes a beautiful and appropriate likeness. It thus serves a useful purpose. When, however, the photographer is deficient in knowledge of art, and knows not how to produce a likeness conformable to well-known art principles, he assumes a false and embarrassing position in making an ostentatious display of valuable paintings in his studio, and, unable to practice what he pretends to preach, he will reap only failure and humiliation. A distinguished American photographer, whose professional quarters are spacious and commodious, devotes one large and well-lighted room to the uses of a picture gallery, where at all times may be seen examples of the work of eminent American portrait painters, who do not need to be urged to exhibit here. Not only does this afford a convenient opportunity for artists of note to display their work, often with pecuniary benefit to themselves, but it serves to entertain and educate patrons of the establishment while waiting for the appointed sitting. Incidentally it forms an ideal preparation for the frequently dreaded ordeal in the studio and, in this case, a valuable asset of the establishment, besides showing how art and photography can be made to help each other.

The reception room, one of liberal dimensions, contains a limited number of photographs, framed in dark moldings, which illustrate the artist's scope and versatility. A grand piano, the usual amount of furniture, including cabinets holding specimen prints, several large plants, Oriental weapons, bronzes, and bric-a-brac, all in subdued tones and excellent taste, serve to produce a rich and harmonious effect, but not a single picture in color is to be seen. As the proprietor is a talented musician and a man of liberal education, having also traveled considerably in Europe, the artistic appointments of his establishment are singularly appropriate. Like Perscheid, Duchrkoop and Van der Weide, who are men of culture and erudition, this American photographer enjoys the friendship of painters, musicians and men of letters, and on occasions his reception room becomes a *salle de musique*, where the genius of music is supreme.

THE ROUND ROBIN GUILD

*Conducted by Elizabeth Flint Wade. Specially designed for the amateur photographer and the beginner.
Membership may be obtained by sending name and address to the PHOTO ERA.*

"Give me your chill and wild embrace,
And pour your baptism on my face;
Sound in mine ears the airy moan
That sweeps in desolate monotone,
Where on the unsheltered hill-top beat
The marches of your homeless feet!"

It is thus that Bayard Taylor apostrophizes the bleak winds of December. Most of us would prefer to sit around the radiant fireplace, "enclosed in a tumultuous privacy of storm," rather than to stand face to face with the pitiless blasts speeding past us from the frozen north.

It is in December that the home fires burn the brightest. It is the month that brings us the Festival of Good Cheer, the day which seems the culmination of all other festivals in the long calendar of the year. The day when Peace on Earth, Good Will to Men is the message heard in every land and in every tongue.

It is the habit of a dear old lady whom I know to commit to memory each year some hymn or poem specially appropriate to Christmas, and on Christmas Eve she repeats it as the family gather about the evening fire. This year the poem is to be Eugene Field's "Chrystmasse of Olde," and I am going to encroach on the space allotted to we Round Robin Guilders for photographic gossip, and give a place to this little song of Christmas. I know you will all like it, and those of you to whom it is not familiar will be glad to have it.

It begins in the quaint way of that old Christmas carol, sung in olden times by the Christmas waits, "God Rest You," —

"God rest you, Chrysten gentil men,
Wherever you may be, —
God rest you all in fiede or hall,
Or on ye stormy sea;
For on this morn oure Chryst is born
That saveth you and me.

"Last night ye shepherds in ye east
Saw many a wondrous thyng;
Ye sky last night flamed passing bright
Whiles that ye stars did syng.
And angels came to bless the name
Of Jesus Chryst, oure King.

"God rest you, Chrysten gentil men,
Faring where'er you may;
In noblesse court do thou no sport,
In tournament no playe;
In paynim lands hold thou thy hands
From bloody works this daye.

"But thinking on ye gentil Lord
That died upon ye tree,
Let troublings cease and deeds of peace
Abound in Chrystantie;
For on this morn ye Chryst is born
That saveth you and me."

RETOUCHING NEGATIVES

THERE are so many things in a negative one would like to have out, to say nothing of its spots and blemishes, that something must be done to remedy these defects before one can make from it a satisfactory print. In other words, one must retouch, remove, or block out offending portions. The mechanical part of retouching a negative is very simple and requires only a certain amount of practice. The finer part of the work — the rounding of the shadows, the toning down here and the uplifting there, the massing and subduing of lights and shadows — are points which require the artistic training of the eye to supplement and guide the skill of the fingers.

The implements required are, two or three lead-pencils of different degrees of softness, two fine brushes, a cake of lamp-black, moist color, a little finely powdered pumice-stone, and a small bottle of retouching varnish. For more ambitious work one needs a box of powdered charcoal and three or four crayon stumps of various sizes. In addition to these there is a very excellent pencil made by Faber for marking on glass or china.

The best pencil for working on the negative is the Hardmuth, it being entirely free from grit. Two of these pencils, the Kohinor 5B's and Kohinor 2B's, will be found quite sufficient for most work. The pencils must be sharpened to a needle point; and as the point dulls in use, it must be resharpened. A piece of emery paper tacked to a small piece of wood will make a good medium for rubbing the lead to a point.

The brushes should be of sable that taper to a fine point. This is necessary, as if not, the brush is apt to make a smudge on the plate and the color must be washed off and the work done over again.

The gelatine after being developed and fixed acquires a smooth surface on which it is difficult to work with a pencil. Either rubbing the place to be retouched with finely powdered pumice-stone or applying a little retouching varnish gives a "tooth" to the film on which the pencil works easily and smoothly. In most cases the pumice-stone will be all that is needed to give the film a working surface. Scatter a little on the places to be retouched and with the end of the finger rub the film, using a rotary motion until the film is slightly abraded. Dust off all superfluous powder and the negative is ready for the retouching. Where a great deal of work is



EDMUND H. ROYCE

FIRST PRIZE — TREES IN LANDSCAPE

required on a negative, the retouching varnish will be found more efficacious. To apply, dip a piece of old soft silk in the varnish and rub quickly and evenly over the plate, using a piece of clean silk for removing superfluous varnish and for evening the application. Old silk leaves no lint on the plate, which is the reason for commending its use, while a brush is very apt to leave marks which show in the printing. The plate must be set aside for two hours to dry, and must be protected from dust. If set against the back of a shelf with the film side to the wall, it will dry without attaching to itself particles of dust or dirt.

For pinholes, which sometimes appear without rhyme or reason, use a little retouching varnish on the spots. When dry, take the softest pencil and with the point fill up the clear spot, taking care that no marks appear on the surrounding film. If this is not successfully done, remove the pencil marks with a little alcohol and try again.

If the pinhole is very large, water-color may be used instead of the pencil. Bring the brush to a fine point by moistening in the color and turning it on the palette. Hold the brush perpendicular to the plate and touch the center of the spot. Rinse the brush free from color and with it deftly work the paint out to the edge of the hole, taking care that it does not run on to the film.

Scratches may be eliminated by drawing a line along the scratch with a soft pencil having a needle point which will give off just enough of the lead to fill the scratch without encroaching on the film itself.

For a negative with harsh contrasts, work over the shadows carefully with the soft pencil, giving the different degrees of density their correct values, then blend with a crayon stump. By this treatment an underexposed negative may be brought up to one with fine printing qualities.

Landscape negatives are much easier to retouch than portraits. In retouching a face the unskilled amateur is apt to lose the modeling. A slight mark even, wrongly made, will spoil the contour of the entire face. Blemishes, however, are easily remedied.

Freckles which appear as black or dark spots in the print are touched out by using the needle-pointed soft pencil. Heavy shadows under the eyes, nose, and chin may be softened and toned down by penciling them and blending with the crayon stump. The lines which

Time — in spite of all our rebuffs — leaves on the face should be dealt with gently. While the photograph usually accentuates them, it is wise to simply tone them down and not try to obliterate them entirely, as such a process destroys the character of the face.

The pencil mentioned among the materials for retouching will be found a most desirable article. It is blue in color and very, very soft, but does not crumble, and writes as easily on smooth glass as does an ordinary pencil on paper. With it one is enabled to work on the glass side of the negative instead of the film side. This is a great advantage with many negatives, such as those which need much work on the backgrounds or in the shadows. Once owned, the amateur will be loath to do without it. The price is 12 cents, and it is made by Faber, whose name is a guarantee of its quality.



ROBERT E. WEEKS

SECOND PRIZE — TREES IN LANDSCAPE

ROUND ROBIN GUILD COMPETITIONS

First prize: A yearly subscription to *Art in Photography*, value \$10.00.

Second prize: \$5.00 in photographic books or magazines, published or advertised by us, to be chosen by the winner.

Third prize: The choice of a yearly subscription to the PHOTO ERA or the *Practical Photographer*.

Fourth prize: One number of *Art in Photography*, value \$2.00.

SUBJECTS FOR COMPETITION

November. — "Street Scenes." Closes December 31.

December. — "Decorative Pictures." Closes January 31. By decorative pictures in this particular competition is meant pictures which readily lend themselves to decorative effect in magazine making, as opposed to those of only an illustrative nature. Headings of pages or departments, the decorating of whole pages and "contents" page designs are desired. "Cover Designs" will be reserved for a special competition later. Decorative pictures need not of necessity be either landscapes or waterscapes, although good examples of their use may be found in the April PHOTO

ERA, as well as the present issue. Flower studies after the style so successfully made by Miss Carine Cadby, of England, are especially pleasing. In fact there are photographs in almost every class of work, especially if they happen to be of a sketchy character, which could be used. We hope therefore that our readers will take especial interest in this competition and look through their negatives for attractive material.

TREES IN LANDSCAPE—AWARDS

First prize: Edmund H. Royce.

Second prize: Robert E. Weeks.

Third prize: Helen W. Clogston.

Fourth prize: William O. Ruse.

Honorable Mention: F. E. Bronson, Erwin Dye, James Beardwood, D. H. Brookin, Lewis P. Craig, Max A. R. Brunner, L. S. Clough, Miss K. E. Cole, H. D. W. Dye, Elmer L. Foote, Christine A. Graham, Jean M. Hutchinson, G. Horlin, Florence M. Harris, Phil Hexom, Mrs. Andrew Jackson, Henry Lussen, Jr., S. Edwin Keller, George F. Keyes, K. Theodor Krantz, Maud S. Lee, William A. Lynch, William Spanton, William Wheelock, Robert H. Reed, Gail P. Philbrick, C. Ney Pickering, Mrs. E. E. Noble, Grace E. Mounts, W. B. Morrison.

G. E. M. — You will find the following formula an excellent one for removing yellow silver stains from negatives. Make up a solution of 10 oz. saturated solution of alum, and $\frac{1}{2}$ oz. hydrochloric acid. Let the negative remain in the bath until clear. For your negatives which have turned yellow from imperfect fixing, or look as if fogged, dissolve 10 oz. of hyposulphite of soda in 20 oz. of water, take equal parts of the solution and of glycerine, spread it over the negative thick enough to cover completely, or lay the negative in a developing tray and flood with the mixture. Let it remain until all trace of fogging or discoloration has disappeared. Sometimes it takes several hours to clear the film.

BERNARD H. — An excellent adhesive mixture for sticking labels to bottles so that they are not easily detached is made of gum arabic and gum tragacanth, each 2 oz.; $1\frac{1}{3}$ drachms of acetic acid; 2 oz. of glycerine. Dissolve the gums in 4 oz. of hot water, then when cool add the acid and glycerine. It is a good plan, when a label has been attached to a bottle, to varnish over the label with a good, clear varnish.

ADA HARTE. — A home-made vignetter may be made from a plate box cover, or from any box cover, in fact. Mark on the cover the shape and size of the part of the picture to be printed; then tear out all of the pasteboard within this space. Put the negative in printing frame and adjust over it the box in such a manner that the part desired will be printed through the opening. That part of the negative under the pasteboard will not print at all, and the edges of the printed picture will fade into the plain surface of the paper, after the manner of a vignette.

D. F. P. — You need not fear the deterioration of your films from carrying them about during your foreign tour, provided they are securely wrapped in tin foil. Films stand more abuse than one would think possible, and come out serenely as good negatives. In my own experience, I made excellent negatives from films that were exposed over a year before developing.

F. S. CRANE. — To remove the fogged streak in your negative, take a piece of clean chamois skin, draw it tightly over the end of the forefinger, dip it into alcohol and rub the fogged place gently, using a fresh place in the chamois when one becomes soiled. The fog will gradually be rubbed away, revealing the detail beneath.

GRACE D. — You will find less trouble with halation if you use films instead of plates. Of course non-halation plates produce little or no halation, but with films there is comparatively little halation to be feared. If you wish artistic mounts, write to PHOTO ERA for samples of mounts, and a sample book will be sent you. The manner of mounting followed in the *édition de luxe* of the PHOTO ERA is a very artistic one for the amateur to copy.

T. H. HENRY. — You ought to be able to dispose of your negatives of peasant life to some dealer in photographs, or in lantern slides. Rau, of Philadelphia, would be a good firm to try. See answer to G. E. M. for direction for removing fog from negatives.

F. W. L. — Circulars giving details of both Round Robin and Historic Picture Guilds have been mailed you. We should be very glad to have you take up the historic work in your locality, as at present we have had no one working in that field. There are no fees nor dues for either guild. Any amateur may belong, and we gladly welcome each to all the privileges and advantages to be gained by membership. See current number for subjects for monthly competitions.

T. KRAFT. — Doubtless the metol has poisoned your finger. Metol will sometimes produce what is called local poisoning. It can be cured quickly by using zinc ointment.

R. H. M. — Most of the back numbers of the PHOTO ERA may be obtained by applying to the circulation department. Some are out of print. You will find a list in a recent number of the PHOTO ERA.

A. C. W. — Use rubber finger tips when developing or when working with chemicals which discolor the hands. It is said that if one washes the hands in sweet milk before beginning developing the chemicals will not affect the skin in any way.

F. FERNALD. — You can buy the glass paper weights with a space hollowed to receive a photograph. They cost 15 cents each, and are usually two and one half inches wide and about four and one half inches in length.

HELEN D. F. — To stop development at once when you find a plate coming up too fast place immediately in a citric acid bath consisting of 5 grains of citric acid to each ounce of water. If you think you have plates which are overexposed, have this bath ready before beginning development.

E. N. A. — You will find your question answered at length in the March number, 1905, of the PHOTO ERA. A detailed description as to the storing and filing of films will be found in that number and will give you just the information of which you are in search.

PERCY L. G. — Developers that will bring out detail in the shadows almost simultaneously with the high lights of a negative are metol, rodinal, eikonogen, and amidol. These are quick-acting agents, but the plate must be left in the tray until a proper degree of density is obtained, usually until the visible image has entirely disappeared.

J. S. D. — To clean your spoiled negatives from the film make a solution of hot suds very strong, place the plates in them and the film will melt and slough off. If they are placed in a tray or bowl and plain hot water run over them, the film will come off. They should be washed in warm suds and polished with soft tissue paper.



HELEN W. CLOGSTON
THIRD PRIZE

TREES IN
LANDSCAPE

THOMAS G. — To harden your films so that they are not easily injured dip them in the following solution: Alum, 1 oz.; tannic acid, $\frac{1}{2}$ drachm; water, 8 oz. Do not leave them in the solution over three minutes, as if left in too long the films are apt to be loosened from the glass. This process will do as well as varnishing, and is much more easily and quickly performed.

G. J. D. — To clean your negative which is stained with silver take a weak solution of cyanide of potassium, dip a bit of surgeon's cotton into it and rub the stained part gently until the stain disappears. Wash well and dry. It is a good plan to put the plate into a bath of hypo to remove all traces of the cyanide of potassium, which if not entirely removed makes a fresh stain of its own.

DAVID T. LANE. — To make a tooth on the film for retouching use finely powdered pumice stone. Put a little over the part to be retouched and rub gently, using a rotary motion. Brush off the superfluous powder and the plate will be found to have a good grain for taking the pencil. It is not necessary to use retouching varnish unless one has a negative which requires a great deal of retouching.

C. E. GRAHAM. — A clearing solution for plates and slides is made as follows: Saturated solution of alum, 4 oz.; saturated solution of citric acid, 4 oz.; muriatic acid, 2 drams; water, 4 oz. After fixing, rinse the plate and place it in this solution for two or three minutes. Wash well, and dry. This solution clears up the shadows and makes a fine printing negative. Yes; the developer powders for which formula was given in September number will keep indefinitely if wrapped in outside covering of waxed paper and stored in a tin box.

BERTRAND BROTHERS. — In heating the developing solution for platinotype I have found the following to entail the least work. Use a large porcelain tray, which fill with hot water. Heat the developer in a porcelain-lined cup, turn the hot water out of the tray and the hot solution in. The tray being warm the solution will retain the heat long enough to develop ten or a dozen prints. There is less danger of staining prints when the solution is heated in this way. When heated in the tray a scum sometimes forms on the surface and a discoloration takes place on the sides of the tray at the height of the solution. With a porcelain tray there is no danger of staining the prints.



G. EDWIN KELLER
FOURTH PRIZE

TREES IN
LANDSCAPE

NOTES AND NEWS

THE AWARDS OF THE SECOND AMERICAN SALON

The Jury of Artists have made the following awards in the Second American Salon:—

\$100 PURCHASE PRIZE OF THE AMERICAN FEDERATION FOR THE BEST PICTURE, SECOND AMERICAN SALON

Mrs. G. A. Barton, Birmingham, Eng., "The Mother's Kiss."

First honorable mention: Guido Rey, Turin, Italy, "Scene Antique."

Second honorable mention: Alfred Ornano, Genoa, Italy, "M. Maeterlinck La Mort de Tintagiles, Act IV."

Third honorable mention: Wm. Clayden, Plymouth, Eng., "Tugging Home."

Honorable mention: Louis Fleckenstein, Fribourg, Minn., "The Lily Pond"; Frederick Haven Pratt, Worcester, Mass., "Study of a Face."

\$50 AWARD BY "THE COUNTRY CALENDAR" FOR BEST LANDSCAPE (AMERICAN WORK)

Jas. E. Underhill, Brooklyn, N. Y., "Against Storm and Tide."

Honorable mention: Frederick Haven Pratt, Worcester, Mass., "Landscape—Northern Italy."

\$50 AWARD BY THE LANDMARK PUB. CO. FOR HISTORICAL LANDMARK

Geo. T. Power, Chicago, Ill., "Niagara Falls."

There were 346 pictures accepted by 123 exhibitors, 81 American, and 42 from England, Italy, Argentine Republic, Cape Town, India, Holland, Spain, Mexico, Ireland, Germany, and Austria. The American workers are credited with 2.65 pictures apiece, and the foreigners with 3.16 apiece. There were some further pictures from abroad, which, however, did not get through the Customs house in time. Guido Rey and Alfredo Ornano, both of Italy, had the largest exhibit, with nine each. Curtis Bell, Louis Fleckenstein, and C. E. Townsend, all three Americans, follow with eight each. Rudolf Eickemeyer, the Misses Parrish, J. H. Field, Vivian Burnett, of this country; Mrs. G. A. Barton, and Marion Silverston, of England; and Giuseppe Castruccio, of Italy, have seven each, and the remainder from one to six apiece.

CONTRARY to last year, the initial exhibition of the American Photographic Salon will not be held in New York City, but probably in Washington, D. C., some time in December. Owing to the uncertainty of obtaining the desired location in the Capital, it is possible that the route of the exhibit will be as follows: Providence, R. I., December 26; Pittsburg, Pa., January 12; Washington, D. C., in February; Chicago, Ill., in March; Minneapolis, Minn., in April; Boston, Mass., in April; followed by New York and Philadelphia.

This will afford us good opportunities to study the pictures adequately, including, no doubt, the contributions from England, Italy, Germany, France, and other foreign countries, and present the results to the readers of PHOTO ERA.

THE Mittineague Paper Company, Mittineague, Mass., from whose products were selected all the beautiful covers which have been a feature of PHOTO ERA during the past year, sent us recently a complete set of samples of cover papers and photographic card stock, which is worthy of special commendation to our readers. It would be difficult, if not impossible, to find in the product of any other concern a greater assortment of colors, textures, and weights than can be supplied by the Mittineague factory, for both printer and photographer. A pleasing feature, especially to the photographer, is the fact that all these mounting papers are made entirely from pure all-rag stock, and no chemicals of any nature are used in their manufacture, which absolutely guarantees non-fading colors and avoids all possibility of injuring prints. One cannot adequately appreciate the almost infinite variety of the cover stock, or the beautiful color schemes it suggests, without having seen the sample books, and we advise any printer or photographer who desires to be progressive to get in touch with the Mittineague Paper Company.

THE round, soft, atmospheric effect, the beautiful modeling, the realistic depth and perspective which makes a portrait lifelike, beautiful, and artistic can be obtained only with a lens made exclusively for portraiture. A Portrait Euryscope, Series III, the construction of which is the improved Petzval system, meets every known requirement of portraiture and yields results of superlative excellence. This, as well as all of the Voigtlander lenses, has attained such world-wide fame that it would be superfluous to dwell upon its rapid growth in favor, its unequalled powers, and the numerous high honors bestowed upon the makers because of it. The career of this celebrated firm is marked by an unbroken series of unqualified successes, as illustrated by their double-portrait objective, the renowned Euryscopes, the superb Portrait Euryscopes, and the marvelous Collinear. Particulars regarding all these lenses will be sent to any address upon application to the Voigtlander & Son Optical Company, 129 W. 23d St., New York City.

IF you contemplate buying any photographic materials or using them as Christmas gifts, do not fail to send for a catalogue of the H. A. Hyatt Supply Company, St. Louis, Mo., who carry everything for both the professional and amateur.

NOTES AND NEWS

THE Rochester Optical Company have just placed on the market their new $2\frac{1}{4} \times 3\frac{1}{4}$ PREMIOETTE CAMERA, which sells at the popular price of \$5.00.

The PREMIOETTE is a folding type, and when closed is fully one third smaller than any other folding camera taking pictures of equal size. It has a very fine Meniscus lens fitted to automatic shutter of three variations of speed, made especially for this camera.

The focusing manipulation is very simple, one having only to pull standard out to desired distance mark, where it catches automatically.

THE new pyro-acetone developer recently placed upon the market by the G. Cramer Dry Plate Company, is fast becoming a favorite with those who are using it. It works quickly and uniformly, without fog or frilling, can be used in a warm climate without ice, and does not stain the hands. These good qualities make it worth a trial. A two ounce sample bottle will be mailed on receipt of 15 cents.

HAMMER'S Extra Fast Plate, advertised on another page, is the product of years of chemical research, which have produced a plate that is sensitive to orange, yellow, green, and the ordinary reds. The value of this special sensitiveness is very apparent in view work, where there are clouds and colored foliage, or in work embracing great distance, snow scenes, and the like. Draperies are reproduced in their true color values; auburn hair will not be reproduced as though it were black; freckles are less noticeable; and blue eyes will not be reproduced as almost white. This means quality in your negatives and patronage at your studio.

THAT the great success of the Di Nunzio Sepia Platinum Paper is well deserved, is apparent to everybody who has used it or even seen the results which can be produced with it. One only needs to see the softness of tone and brilliancy of color to be convinced. Mr. Di Nunzio knows what a good platinum paper should be, and his success is due to his persistence in maintaining the high standard of his product in spite of competition.

ONE of the photographic supply houses of Boston which has demonstrated by its success that it has come to stay, is the new store of Percival Carmichael, at $13\frac{1}{2}$ Bromfield St. The success of this firm is merited, because of the complete stock of everything photographic which it carries, and the very prompt and courteous treatment which every customer receives. Mr. Carmichael is never too busy to give his customers photographic advice and honest information.

THE photographic stock house of Ralph J. Golsen, Chicago, Ill., announces that *The Photopivot* will be devoted this month to a series of views of their great establishment. To this end the current issue will be entitled "A Photographic Trip through the Greatest Lens and Outfit House of America," with about twenty-four half-tone illustrations. One thousand copies of the edition will be reserved to meet requests, free of charge.

ON November 12 the Second Annual Photographic Exhibition of the Worcester, Mass., Art Museum was opened. The closing date is December 12, and from present appearances this exhibition represents a decided advancement over that of last year. Of about 400 prints shown, nearly half are the work of local exhibitors, while the remainder are loan collections from the Salon Club and Photo Secession.

THE eleventh annual convention of the Photographers' Association of Kansas was held at Wichita, Oct. 17, 18, 19, 1905. The meeting this year surpassed those of previous years in point of attendance and interest, and, owing to the many good speakers, instructive demonstrations, and hearty good-fellowship, was of great benefit to the members and pleasing to all concerned. There was a fine showing of photographs, as might be expected, considering the fine list of awards. The following officers were elected: President, Samuel Hirst, Hutchinson; First Vice-president, W. W. Ferguson, Pittsburg; Second Vice-president, R. W. Romig, Ft. Scott; Secretary, C. J. Rolfe, Salina; Treasurer, B. G. Grondal, Lindsborg.

THE fifth annual convention of the Photographers' Association of the Pacific Northwest and the second annual convention of the Photographers' Association of California were held jointly at Portland, Ore., Sept. 4, 5, 6, 7, 8, 1905. Many interesting demonstrations were given by the dealers, and the speakers, including Mr. Frank Barrows of Boston, Treasurer of the National Association, were most interesting. The reports of the various officers show both associations to be in a flourishing condition, and the idea of a joint convention seems to be productive of good feelings, a broader acquaintance with fellow-craftsmen, and of photography in general. The officers elected were as follows: President, J. Savannah, Victoria, B. C.; Vice-president, Milton Loryea, Spokane, Wash.; Secretary-treasurer, W. G. Emery, Corvallis, Ore. State Vice-presidents as follows: for Oregon, T. J. Cherrington, Dallas; Washington, T. B. Hand, Bellingham; Idaho, John Fink, Nez Perce; Montana, Mrs. F. J. Fullerton, Great Falls; Vancouver, Stephen J. Thompson.

NOTES AND NEWS

WE note that the Bissell Carpet Sweeper Company is suggesting its carpet sweeper as a pleasing Christmas gift. This firm has probably done more than any other towards bringing carpet sweepers to their present state of perfection, and were the first to reduce the price to a figure within the reach of every one. Bissell Cyco is no longer a luxury but a necessity in every clean, well-regulated household. Our readers should take advantage of their attractive offer.

THE Photographic Department of the Brooklyn Institute of Arts and Sciences announces that arrangements have been made to hold a series of five special exhibitions during the season of 1905-1906, in the Department rooms at 201 Montague St. As these exhibitions should prove interesting and instructive to our many readers in Brooklyn, we give the dates below:—

Nov. 14 to 18, 1905, A Representative Exhibition; Dec. 5 to 19, 1905, Exhibition of Enlargement on Bromide Papers; Jan. 9 to 13, 1906, Exhibition of Prints in Gum-bichromate; Feb. 6 to 10, 1906, An Invitation Exhibition: Some prominent photographers; March 6 to 10, 1906, An Invitation Exhibition: Some prominent photographers.

As a straw which shows which way the wind lies the catalogue of the Obrig Camera Company is a bright example. The ever increasing size of this catalogue of photographic supplies, which in a few years has grown from a small booklet of a few pages to a handbook of over seventy, is evidence of the wonderful increase of business that this firm has enjoyed, and it is no exaggeration to say that its customers are to be found in every country in which English is spoken. The new Obrig catalogue contains a wonderful lot of information on supplies both of the useful and the *luxury* type. Our readers can obtain a copy of it by sending their names and addresses to the Obrig Camera Company, 165 Broadway, New York.

THE sixth annual meeting of the Photographers' Association of Oklahoma and Indian Territory was held at Ardmore, Oct. 10, 11, 12, 1905. Owing to the fact that the convention was held in the southern part of the territory, the attendance was a little light; but otherwise the meeting was a success and showed the association to be in a very flourishing condition. The following officers were elected: President, J. M. Gannaway, South McAlester, I. T.; First Vice-president, G. A. Streeter, Shawnee, O. T.; Second Vice-president, I. W. Saunders, Davis, I. T.; Secretary, J. A. Shuck, El Reno, O. T.; Treasurer, E. W. Hamilton, Oklahoma City, O. T.

AMONG the many colors now used in printing processes, none is so justly popular for both portraiture and landscape as sepia. Its warmth and richness are well suited to a great variety of subjects, and we know of nothing which can excel the sepia papers made by Willis & Clements of Philadelphia, either for simplicity of manipulation or quality of tone. A sample print with descriptive pamphlet will be sent upon request.

ON another page the advertisement of the Zeiss lens, Double Protar, Series VIIa, sold by E. B. Meyrowitz of New York, should claim the attention of every photographer who contemplates buying a high-grade rapid anastigmat, adapted to all branches of instantaneous photography. The excellent qualities of the Zeiss lenses have been recognized for so many years that there is no necessity for dwelling on them here in detail. Full particulars regarding the entire Zeiss series will be sent upon request.

WE have recently had submitted to us two striking and interesting photographic accessories by G. Gennert of New York and Chicago. We understand that the demand for these has already far exceeded expectations, and we can strongly recommend them to our readers.

The Primus Titling Outfit is one of the latest and simplest that has ever been brought to our notice. It contains 152 letters, spaces, numbers, holder, tweezers, inking pad, etc., neatly boxed with printed instructions. The price is \$1.25 complete. With this outfit one can have no excuse for not being able to title negatives in a cheap and efficient manner.

The printing gauge consists of a very neatly made nickel-plated metal frame, in which is a negative of twelve different densities, each being numbered. This is to be permanently attached to a printing frame and other forms, and is a valuable adjunct for carbon printing, platinotype, gum-bichromate, and similar processes. It is neatly finished, and at 30 cents, the price asked, there should be a big demand for such a useful article.

FOR the photographer who desires a high-grade lens of great speed, capable of producing fine printing negatives in dull weather, or for use with a focal plane shutter, the Goerz "Celor," f. 4.5, cannot be excelled. It will cover at full aperture any size plate for which it is listed, giving perfect definition up to the edges. Extreme speed, ideal definition, excellent covering power, even illumination, and any amount of softness or sharpness by proper focusing are some of the features of this lens. Catalogue E. 6 will tell you all about it.

NOTES AND NEWS

FROM the Wollensak Optical Company, Rochester, N. Y., we have received a dainty booklet, describing the Wollensak shutters and lenses. It is certainly a pleasure to look through a catalogue of goods representing such sterling qualities and fine workmanship as this firm has always manufactured. In addition to the usual type of shutters, which are a well-known product of the Wollensak factory, the booklet contains descriptive matter regarding a "Skyshade Shutter" which minimizes strong overhead light, thus obviating the common defect of an overexposed sky and an underexposed foreground. This is accomplished by means of a shutter working before the lens, which admits more light from the bottom than from the top. Another strong feature is the Wollensak Portrait lens, Series A. This lens possesses excellent qualities and the high speed of f. 5 at a moderate price. A booklet will be sent to any address on request.

As winter approaches and snow covers the ground with its almost uniform whiteness, in strong contrast with the dark, bare trunks of trees and other objects, the need of orthochromatic or non-halation plates is keenly felt. At such times Seed's Non-halation Ortho looms large upon the horizon, because it combines both of these qualities, and in addition to being especially suited to the needs of winter work, is perhaps adapted to a greater variety of work than any other brand of these excellent plates. It is a double-coated plate of wide latitude, with the same speed as Seed's 26x, and as a result of its orthochromatic qualities possesses pleasing gradation, roundness, and vigor without harshness.

THIS is unquestionably the most popular season of the year for making interiors and portraits by flash-light, and the choice of a flash compound is an important matter. Flash-light powders are, as a rule, dangerous, but the fact that the Agfa Blitzlicht, manufactured by the Berlin Aniline Works, 213 Water St., New York, is the only one among many which the United States Postal authorities will allow to be sent through the mails, speaks volumes for its safety. If you think this is its only good quality, get a bottle from your dealer, try it and learn your error.

THE Fourth International Salon of photographic art will be held by the Photographic Society of Marseilles from the 3d to the 25th of February, 1906. This salon will be international in character, and entries are desired from America.

Entries must be made before December 31 to Mons. Astier, 11 rue de la Grande Armée, Marseilles, France, and pictures must arrive at the same address before the 15th of January.

THE Kodak Enlarging Camera, advertised on another page of this magazine, is an instrument worthy of the attention of every camera user. It furnishes a better enlarging outfit at a low price than any other apparatus we know of, and makes it possible for the worker to secure fine $6\frac{1}{2} \times 8\frac{1}{2}$ prints from $3\frac{1}{4} \times 4\frac{1}{4}$ or 4×5 negatives at very little cost, and practically no inconvenience. If one wishes to work from smaller negatives than these, or use only a portion of a negative, inside kits may be had at small cost. The Eastman Kodak Company has also devised an ingenious supplementary lens board which may be substituted in place of the front bellows of the enlarging camera, so that by the addition of a suitable lens the outfit may be used as a portrait camera. One of the editors of the PHOTO ERA has had the pleasure of using the instrument in both capacities, and cannot commend it too highly.

THE Kalamazoo Shutter Company of Kalamazoo, Mich., are now sending out a little booklet, announcing several new and important improvements in their Low and Kazoo shutters. Both of these types have been used by thousands of photographers for many years, and so perfect and durable have they proved that it would seem difficult to improve them; yet their usefulness and adaptability has been increased full fifty per cent, while the very low prices remain the same.

MR. W. H. WALMSLEY, the well-known optician, died suddenly at his home in Philadelphia, Sunday evening, October 22, in his seventy-fifth year. For nearly forty years Mr. Walmsley was engaged in the optical line, and recognized as an authority in microscopical and photographic work, his specialty being photomicrography. He was an active member of Jas. W. Queen & Company, in the early days of that concern. Later he associated himself with the well-known house of R. & J. Beck, London, and in a short time built up an extensive demand for that firm's product in the United States. His success in introducing the Beck Lens is a matter of history among the stock dealers of this country. He afterwards organized the firm of W. H. Walmsley & Company, and conducted a general optical business, and also handled photographic goods on a large scale. He had recently been associated with Prof. John MacFarland in the Biological Department of the University of Pennsylvania.

Mr. Walmsley was a contributor to various scientific journals, among others the *British Journal of Photography*, *Photographic Times Annual*, and *Photo-Miniature*. He was the founder of the American Microscopical Society and a member of the Royal Microscopical Society of London.

His loss will be mourned by a host of friends.

NOTES AND NEWS

THE ARISTO GOLD POST CARDS

FOR some time past the American Aristotype Company has been urged to place upon the market a high grade sensitized collodion post card that would be capable of producing pleasing sepia effects, and at the same time, of simple manipulation. They finally decided to place upon the market the Aristo Gold Post Card. This card is coated with Aristo Gold Collodion emulsion upon an extra heavy grade of the purest paper stock obtainable, and by the simplest process of manipulation imaginable, most beautiful sepia prints are obtained.

One of the best mediums for getting money that has been placed within the reach of the professional photographer for a long time is the Aristo Gold Post Card. A prominent photographer remarked recently, when this post card was called to his attention, "I can see no reason why my people in the reception room cannot make additional sales of enough of these post cards to pay the running expenses of my studio." In this remark that photographer practically hit the nail squarely upon the head, for it seems to be a fact that such a result could readily be accomplished if the scheme is properly and energetically handled.

We could hardly expect a portrait photographer to take these post cards, make negatives especially for them, and do such a thing, but it certainly is a fact that enough extra orders can be taken to bring about such a result, from people who have already placed their order for as many pictures as they *think* they require. For instance, a lady has placed her order for say two dozen cabinet photographs at your regular price, say five or six dollars per dozen. Those pictures she considers too expensive to give away freely to ordinary friends, and she reserves them for her most particular friends and deals them out to them very conservatively; a good wide-awake reception room or sales lady can take this same customer and sell her from one to four or five dozen post cards, printed from the same negatives from which her original pictures were printed, for which she has paid five or six dollars a dozen, and readily get a dollar and a half or two dollars per dozen for the post cards which need cost the photographer no more than the price of the cards and the printing of the same, for the reason that they are ready to print and finish.

It will be found that almost any negative that has been made for cabinet size prints, can readily be utilized for the post card portraits, simply by masking the negative to a suitable size to harmonize with the size of the post card. A customer can readily be shown that these post cards, with a line or two of complimentary remarks, etc., with the autograph of the sender, will make ap-

propriate gifts to many dozens of her friends to whom she would not think of sending a full size and expensively mounted photograph. When it is explained to the customer that all she needs to do is to place a one cent stamp upon the address side of the card, do what writing she decides upon, and drop it into the mail, the matter will appeal to her, and it will be found that a large majority of customers who are ordinarily allowed to leave the studio with one or two dozen photographs to distribute among their friends, can be induced to buy several dozen of these cards, and the photographers doing business along these lines will soon find that this extra money he is getting out of them will pay the running expenses of his studio.

The Aristo Gold Post Card is manipulated according to the following

DIRECTIONS

Print until all detail is out or about two shades deeper than finished print.

Wash in six changes of water, separating the cards thoroughly in each water.

Fix for 20 minutes in hypo bath 30 grains hydrometer test (or 4 oz. hypo crystals to 32 oz. water).

Wash one hour in running water or sixteen changes by hand, separating the cards thoroughly in each water.

Dry between photographic blotters.

FOR PURPLE TONES

After printing, place cards, one at a time face down, into a tray containing 16 ounces of water to which has been added $\frac{1}{4}$ ounce of table salt. In this solution the cards should be kept in motion and thoroughly separated. Allow them to remain in this solution until they turn to a purple tint, after which rinse off in clear water containing just enough sal soda to make it feel smooth to the touch. Leave the cards in this water two or three minutes, then remove them to hypo bath and wash as directed above.

TO FLATTEN CARDS

Proceed as follows: Take a piece of two inch gas pipe or a pasteboard mailing tube two feet long and cover it with clean paper, pasting the paper to the tube. Cut a strip of heavy strong paper several yards long and two feet wide, roll same around tube, after a couple of turns roll the cards in face down between paper and tube—continue to roll until all cards are in, and let them stand for one hour. Should cards curl too much, reverse and put in roll for five or ten minutes.—*Aristo Eagle*.

BOOK REVIEWS

THE MODERN WAY IN PICTURE MAKING. Eastman Kodak Co., Rochester, N. Y., 1905. Price, \$1.00.

This finely printed book of 190 pages is a treatise designed to make photography easier for the amateur. It covers with fulness and precision every point which is likely to cause him trouble. While devoted mostly to an exposition of the simple and labor-saving methods of the kodak system of photography in all its developments and ramifications, it does not neglect the principles and methods of plate photography and descriptions of all processes, up to the most advanced, which are likely to come within the field of any amateur. There are special articles on more advanced subjects by such authorities as Alfred Stieglitz, Robert Demachy, Rudolf Eickemeyer, Jr., Bernard Alfieri, and several others. The book is finely illustrated and will afford help and counsel in almost every conceivable case where it is needed by any amateur. It may be obtained of any kodak dealer.

HOW TO STUDY PICTURES. Chas. H. Coffin. New York, The Century Co.

Here is a book of great value to photographers and picture lovers generally. Many a time have we wished for a concise treatise on the history of the art of painting, not too long and which would give not only a summary in chronological order of the great artists and their works, but also some insight into their methods and motives. All this and more has been realized in this beautiful book of Mr. Coffin's, with its 513 octavo pages and 56 full-page inserts, reproductions from the famous paintings of the world. Add to this a complete index and glossary of art and a bibliography of books on art and you have one of the most useful and valuable works on picture making that has appeared for many years.

RAMBLES IN NORMANDY. Frances Miltoun. Boston, L. C. Page & Co. \$2.00 net.

A series of picturesque chapters on the ancient province of Normandy, in France, is here embodied in very attractive book form. The route followed is off the beaten tourist track and the reflections and experiences of the author and his artist friend are intensely interesting. The chapters on the "Roads of France," the "Manners and Customs of the Country Side," the study of the patois and the practical travel talk throughout the book make it almost invaluable to travelers in these parts. While the illustrations are artistic, as far as they go, we cannot help the wish that the illustrator had used a No. 3 A folding pocket kodak and non-curling films for some of her snap-shots. They would have added very materially to an otherwise very interesting book.

BOOK OF PHOTOGRAPHY. Paul N. Hasluck. Cassell & Co., Ltd. New York, 1905. \$3.00.

A book on photography, practical, applied, and theoretical, by this well-known author. The book contains descriptions of all processes, formulae, sketches of apparatus, etc., of great value. The illustrations are, with few exceptions, technical, differing from many photographic handbooks which contain examples of pictorial photography. This book forms a valuable work of reference for both professionals and amateurs.

TWO IN ITALY. Maud Howe. Little, Brown & Co., Boston. \$2.00, net.

It was with pleasant remembrances of "Roma Beata," published last year by Little, Brown & Co., that we read this new collection of ever delightful reminiscences by Maud Howe. In point of local color and artistic finish, "Two in Italy" is more successful than "Roma Beata," although the reader who has never seen the enchanted country of which Miss Howe writes will perhaps enjoy her first book best. To every one whose library contains what is choicest and most delightful of modern literature, we recommend these two books strongly.

WE have just received from Lothrop, Lee, and Shepard Co. a small volume which brings to our minds the small beginning from which the present art of engraving has sprung. The book is styled an exact reprint of "The Only True Mother Goose," published in 1833 by Munroe & Francis. It comes to us without abridgment or addition, straight from the hand of Thomas Fleet, as he gathered and published it in derision of his mother-in-law. The illustrations, probably made by Abel Bowen, the first wood-engraver in the period after the Revolution, show cleverness and ingenuity, and we are much indebted to the publishers for preserving this curious souvenir of those early days.

THE AMERICAN ANNUAL OF PHOTOGRAPHY AND PHOTOGRAPHIC TIMES ALMANAC FOR 1906.

G. Gennert, wholesale agent. Price, paper, 75 cents; cloth, \$1.25.

The "American Annual" for 1906 fully lives up to its long and worthy record of past years, and furnishes a wholesome feast for the eye as well as the mind. The illustrations are well selected, and represent practically every phase of pictorial photography, and we feel that the employment of less brilliancy in the matter of printing inks this year than last is a vast improvement. The literary portion of the volume consists of articles of a high order by men well known in photographic circles as well as tables and formulae of great benefit to the worker.

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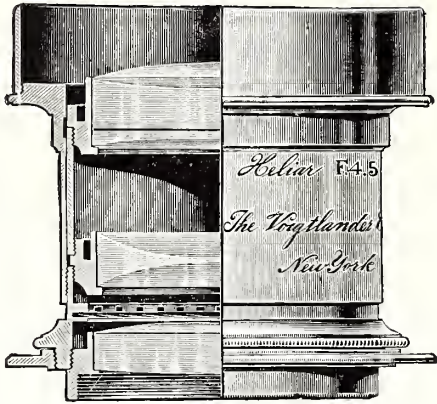
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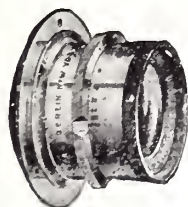
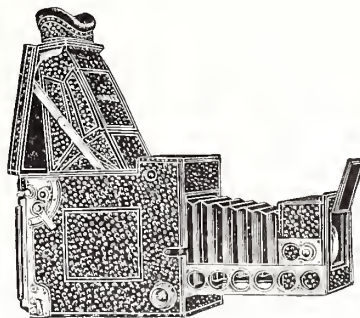
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NUMBER 1. APRIL, 1904.

Trimming, Mounting, and Framing

The Pictorial Work of Alex. Keighley, F. R. P. S.

A practical volume on a subject whose principles are harder for the beginner to grasp than almost any other in photography. A complete résumé of the reasons, principles, and methods for mounting, with articles on trimming, framing, and titling.

NUMBER 2. MAY, 1904.

Printing on Bromide and Gaslight Papers

The Pictorial Work of A. Horsley Hinton.

A treatise on bromide papers unlike any other. Besides giving full directions for making prints on quick and slow papers, it gives complete instructions for printing from two negatives, printing borders, and also for toning prints to various colors by all the approved processes.

NUMBER 3. JUNE, 1904.

Developing and Developers

The Pictorial Work of Ernest R. Ashton.

A thorough treatment of the subject, laying special stress on factorial systems, and control in development. Containing also a description of the constitution, properties, advantages, and methods of use of all the developers employed at the present time.

NUMBER 4. JULY, 1904.

After-treatment of the Negative

The Pictorial Work of Robert Demachy.

A text-book giving full instructions on the improvement of faulty negatives by the various processes of intensification and reduction, general and local, with notes on many subsidiary processes of after-treatment.

NUMBER 5. AUGUST, 1904.

Work with the Hand Camera

The Pictorial Work of Frank M. Sutcliffe.

A comprehensive treatise of the utmost interest and value to all users of hand cameras, including articles on the use and development of roll films. This number is indispensable to all beginners.

NUMBER 6. SEPTEMBER, 1904.

Platinotype Printing

The Pictorial Work of Charles Job.

A complete manual of the process, tell-

ing everything a platinum worker needs to know, such as making, printing, and developing the paper to get all the possible colors. The book should be in the hands of every amateur.

NUMBER 7. OCTOBER, 1904.

Landscape Work

The Pictorial Work of Reginald Craigie.

This interesting and valuable number is a wholly practical working companion covering both the technical and pictorial aspects of landscape photography.

NUMBER 8. NOVEMBER, 1904.

Architectural Work

The Pictorial Work of Arthur Burchett.

Describes the photography of architectural subjects in full detail, including indoor and outdoor work, telephotographic taking of inaccessible details, a survey of the different architectural styles, and many other interesting matters.

NUMBER 9. DECEMBER, 1904.

Photographic Retouching

The Pictorial Work of J. B. B. Wellington.

This number deals with the very important subject of retouching the negative, treating it in a full and practical manner. It is one of the most valuable handbooks yet published, and is indispensable to all who do portrait work.

NUMBER 10. JANUARY, 1905.

Winter Work

The Pictorial Work of Henry Speyer.

This treatise goes exhaustively into all varieties of winter work, indoors and outdoors, particular attention being given to the pictorial aspects of the winter season.

NUMBER 11. FEBRUARY, 1905.

Lantern Slide Making

The Pictorial Work of Will A. Cadby.

An excellent manual on all phases of making and finishing lantern slides, including a thorough treatment of toning, spotting, binding, coloring, printing-in of clouds, and other practical pointers.

NUMBER 12. MARCH, 1905.

Pictorial Composition

The Pictorial Work of Bernard Alfieri.

An excellent treatment of the principles of picture making, written thoroughly but

simply, and explaining the principles of composition so that the beginner can easily get a good grasp of the subject.

NUMBER 13. APRIL, 1905.

Animal Photography

The Pictorial Work of Viscount Maitland.

A useful handbook for every lover of wild life and owner of pets. It treats of the photography of animals, wild and domestic, under all circumstances, and of the manufacture and use of the necessary apparatus.

NUMBER 14. MAY, 1905.

Gum-bichromate Printing

The Pictorial Work of Charles Moss.

A simply written and complete guide to the various methods of printing in gum-bichromate; its preparation and manipulation with practical formulas. The best book on this increasingly popular process.

NUMBER 15. JUNE, 1905.

Floral Photography

The Pictorial Work of Mrs. Cadby.

This number contains a vast amount of practical information on photographing flowers at home and in their native haunts, with helpful articles on flower compositions, natural decorative forms, and other details of interest.

NUMBER 16. JULY, 1905.

Portrait Photography

The Pictorial Work of Farley Lewis.

This number deals comprehensively with the ever popular subject of portraiture, including articles on lighting, posing, retouching, finishing, the construction of a home studio, and giving special attention to the sympathetic treatment of the sitter. It is a book that every amateur should own.

NUMBER 17. AUGUST, 1905.

Orthochromatic Photography

The Pictorial Work of Harold Baker.

One of the most interesting and helpful numbers of the series, containing a survey of the theory of light and color, complete instructions for the making and use of orthochromatic plates and color filters, with dark-room directions regarding red sensitive plates and many other matters of interest.

Other numbers to follow monthly and already in active preparation will deal with Clouds, Marine and Seascape, Genre, Lenses, Night Photography, Chemistry, Telephotography, Ozotype, Iron Printing Processes, Optical Lantern, Stereoscopy, Flash-light Work, Finishing the Print, Combination Printing, Photo-micrography, Figure Studies, Copying, etc.

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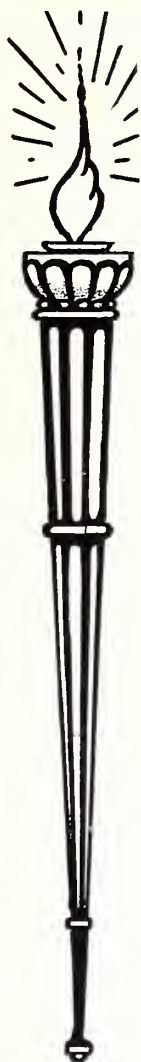
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Art in Photography

This periodical, issued at intervals of two months, is by far the most sumptuously prepared collection of photographic reproductions ever presented to the public in this or any other country. Each number contains at least five photogravures and eight or more autotype reproductions of the photographic work of the greatest living amateur and professional photographers of all countries. These reproductions are of the highest quality and are mounted on sheets 12x18 inches, which are contained in a portfolio, thus allowing of easy removal for framing. The contents of the first three numbers follow:

Number One

PICTURES IN PHOTOGRAVURE

Joseph Jefferson *Garò, Boston*
Portrait *A. Albert, New York*
The Bivouac *Th. Schneider, Leipzig*
The Butterfly, *David B. Blount, Newcastle-on-Tyne*
Les Charrons *A. Gilbert, Paris*
L'Offrande à Jupiter *Ach. Lemoine, Paris*

PICTURES IN AUTOTYPE

Landshaft *Dr. H. Bachmann, Graz*
A Lady of the Sixties *D. Oct. Hill, Perth*
Burg Eltz *Max Moeller, Aachen*
Her Tender Care, *Rudolf Eiekemeyer, Jr., New York*
A Little Peasant Girl *Jeanne Bennett, Baltimore*
The Pool in the Road *Jeanne Bennett, Baltimore*
Etude *P. Dubreuil, Lille*
Intérieur *Comte C. De Clugny, Paris*

Number Two

PICTURES IN PHOTOGRAVURE

Sunshine and Rain *A. Horsley Hinton, London*
Abandoned *Charles Job, Hove*
Hollaendisches Intérieur, *Dr. L. Kleintjes, München*
Etude en Brun, *Mlle. C. Laguarde, Aix-en-Provence*
Portrait *Garò, Boston*

PICTURES IN AUTOTYPE

Why Are You so Homely? *Geo. H. Seeley, Stockbridge*
Pêcheuses de Crevette *Gabriel Soulayr, Tours*
Toilers *James Gale, Wolverhampton*
Brouillard au Port *A. Gomez Gimeno, Bordeaux*
Over the Hill *W. A. Boger, Brooklyn*
The Farmer's Early Springtime Task, *Charles W. Learborn, Portland*
Whither and Whence *George W. Leighton, Chicago*
Among the Fields and Wildflowers, *George W. Whitehouse, Handsworth*

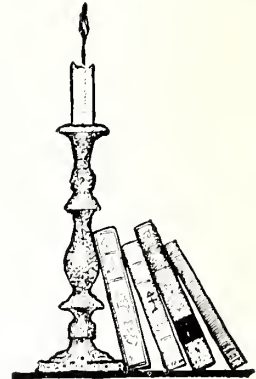
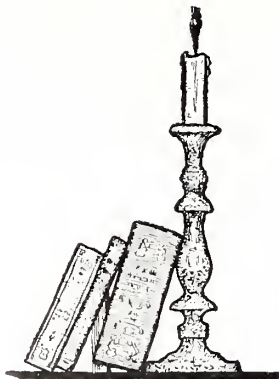
Number Three

PICTURES IN PHOTOGRAVURE

A Lady's Portrait *Garò, Boston*
Am Luganer See *Fronz Goerke, Berlin*
Le Reitre *Taponier, Paris*
Sole Temps *L. Misonne, Gilly*
Stella *Mlle. C. Loguarde, Aix-en-Provence*

PICTURES IN AUTOTYPE

The Landing Place *Curtis Bell, New York*
The Cigarette *Rudolf Duchrkoop, Hamburg*
The Valley *C. F. Clarke, Springfield*
The Road through the Wood *G. Horlin, Chicago*
In the Sheep Pasture *R. E. Weeks, Chicago*
Föhrenwald *S. Urff, Hanon*
The Brook in Winter *Frank R. Fraprie, Boston*
Magnolia Blossoms *Mrs. M. S. Gaines, State Line*



The subscription price of *Art in Photography* is ten dollars per year, but subscribers to the *Photo Era* or the *Practical Photographer* may subscribe at nine dollars. All subscriptions will commence with the next number issued after receipt of remittance. Single copies cost two dollars each when ordered in advance of publication. Numbers one and two will be furnished at three dollars each as long as the supply lasts. Address orders and remittances to PHOTO ERA PUBLISHING CO., 170 SUMMER ST., BOSTON, MASS.



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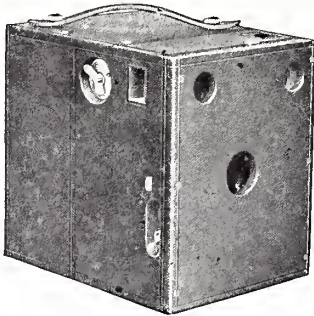
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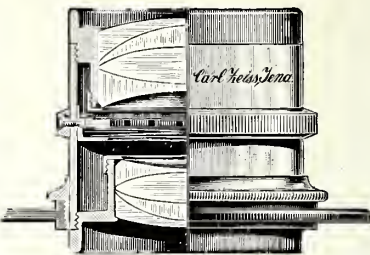
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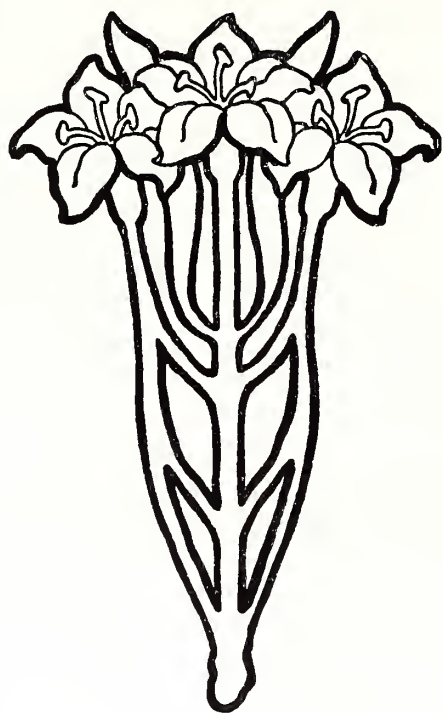
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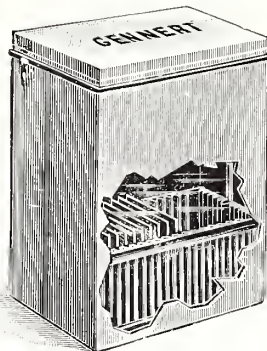
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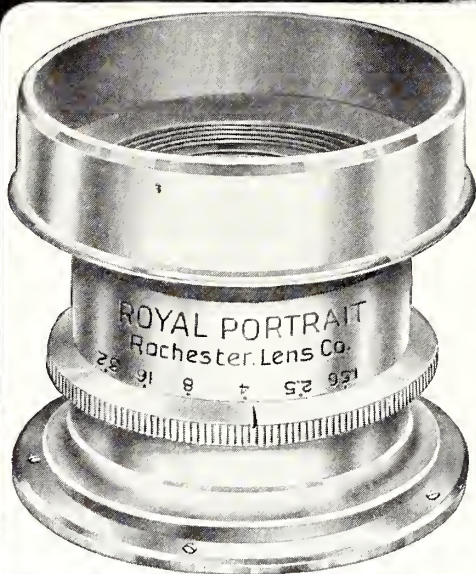
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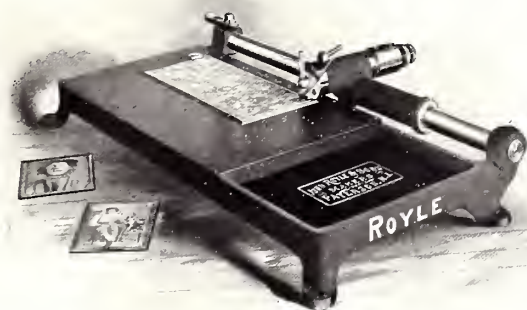
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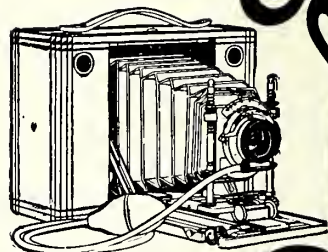
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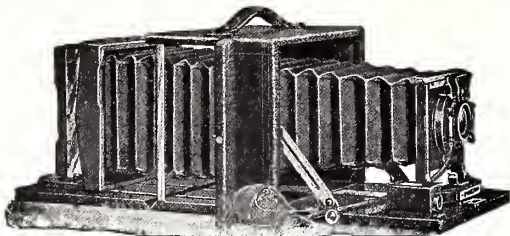
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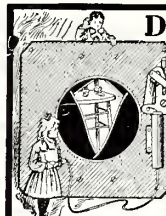
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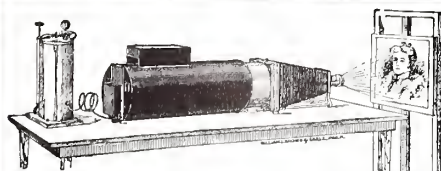


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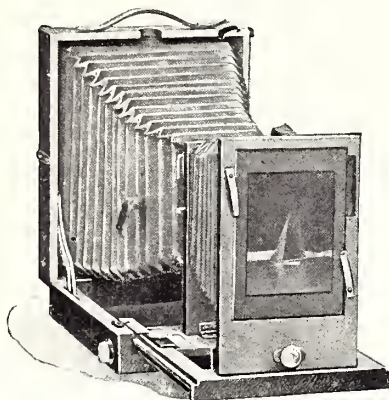
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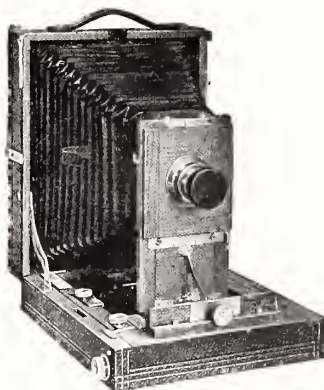
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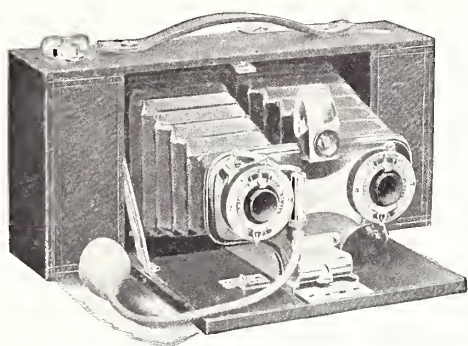
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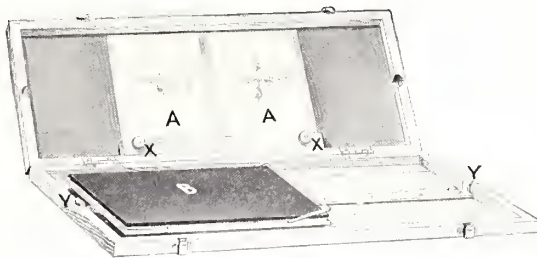
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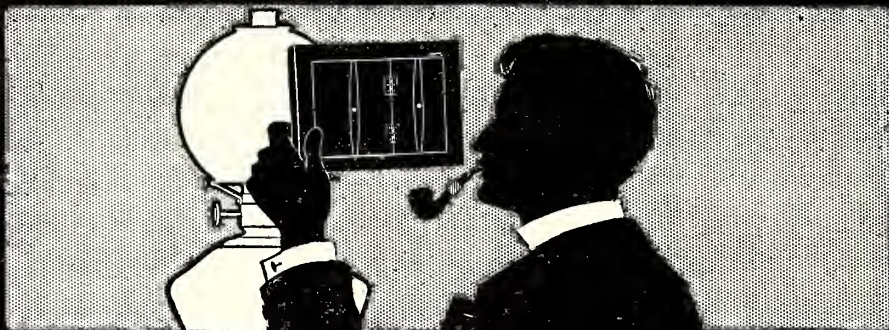
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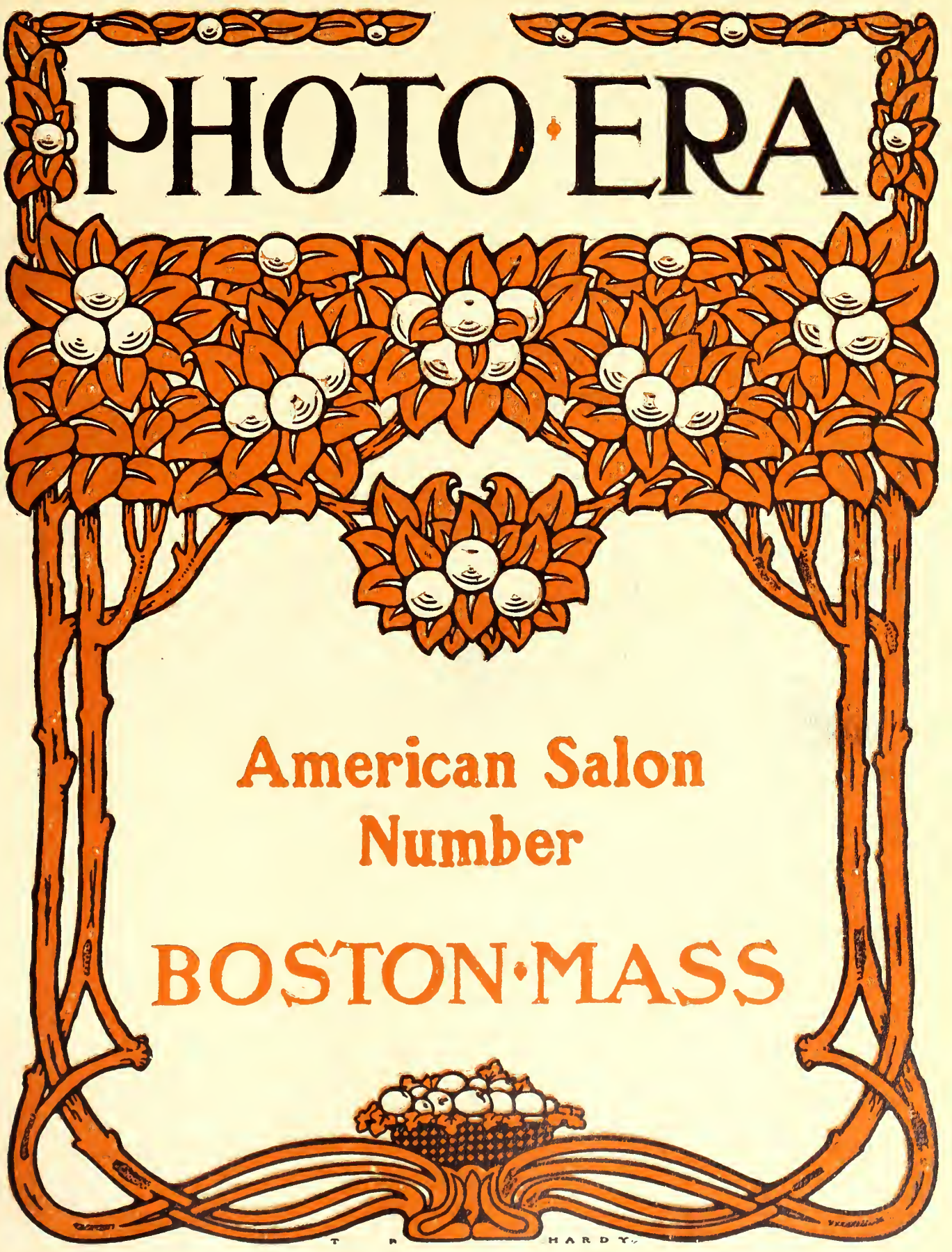


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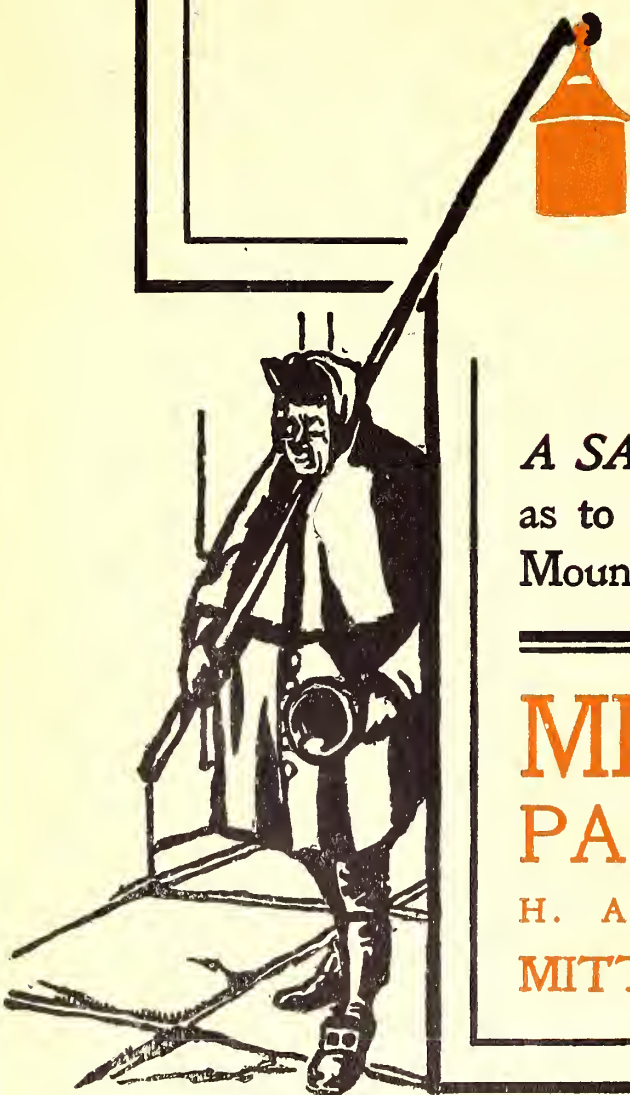
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